KYOCERA

User's Manual

Kyocera Laser Printer **FS-800**

Caution

NO LIABILITY IS ASSUMED FOR ANY DAMAGE CAUSED BY IMPROPER INSTALLATION.

SOFTWARE USED WITH THIS PRINTER MUST SUPPORT THE PRINTER'S EMULATION MODE. The printer is factory-set to emulate the HP LaserJet 5Si (excluding support for paper size larger than A4/letter). The emulation mode can be changed by following the procedures described in Chapter 2.

Notice on Software

SOFTWARE USED WITH THIS PRINTER MUST SUPPORT THE PRINTER'S NATIVE MODE OR ONE OF ITS EMULATION MODES.

Notice

The information in this manual is subject to change without notification. Additional pages may be inserted in future editions. The user is asked to excuse any technical inaccuracies or typographical errors in the present edition.

No responsibility is assumed if accidents occur while the user is following the instructions in this manual. No responsibility is assumed for defects in the printer's firmware (contents of its read-only memory).

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This Kyocera page printer uses PeerlessPrint5 to provide the HP LaserJet compatible PCL5 language emulation. PeerlessPrint5 is a trademark of The Peerless Group, Redondo Beach, CA 90278, U.S.A.

This product was developed using the Tornado™ Real Time Operating System and Tools from Wind River Systems.

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FCC statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

Shielded circular cable should be used for interfacing with the computer.

Caution to user
Any modification without prior permission may cause harmful interference.

If any modification/change is introduced to this equipment without prior permission, Kyocera as the manufacturer cannot guarantee compliance with FCC rules.

To use equipment which does not comply with FCC rules is prohibited.

The printer may be optionally installed with the following units:

Conforming to the Class B limits

- IB-10 Serial Interface Board Kit
- PF-16 Paper Feeder (250 sheets)

Interface connectors

Important note on the interface connectors
Be sure to turn off printer power before connecting or disconnecting an interface cable* to the printer. For protection against static discharge which may be applied to the printer's internal electronics through the interface connector(s), keep any interface connector which is not in use capped using the protective cap supplied.

*** Use shielded interface cable.**

Safety information

Laser safety
This printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation. Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape from the printer during any phase of user operation.

Laser notice
This printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR Subchapter for Class I (1) laser products, and elsewhere is certified as a Class I laser product conforming to the requirements of IEC 825.

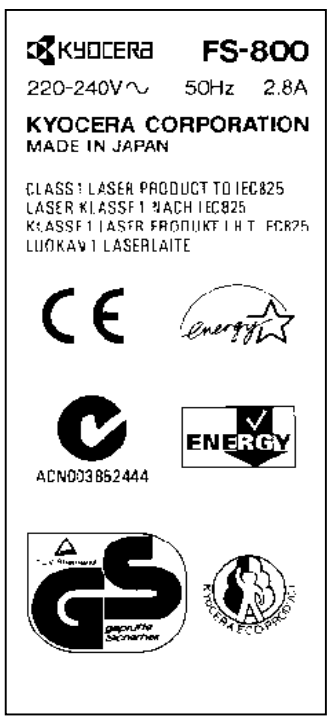
DANGER

Invisible laser radiation when remove the cover.
Avoid direct exposure to beam.

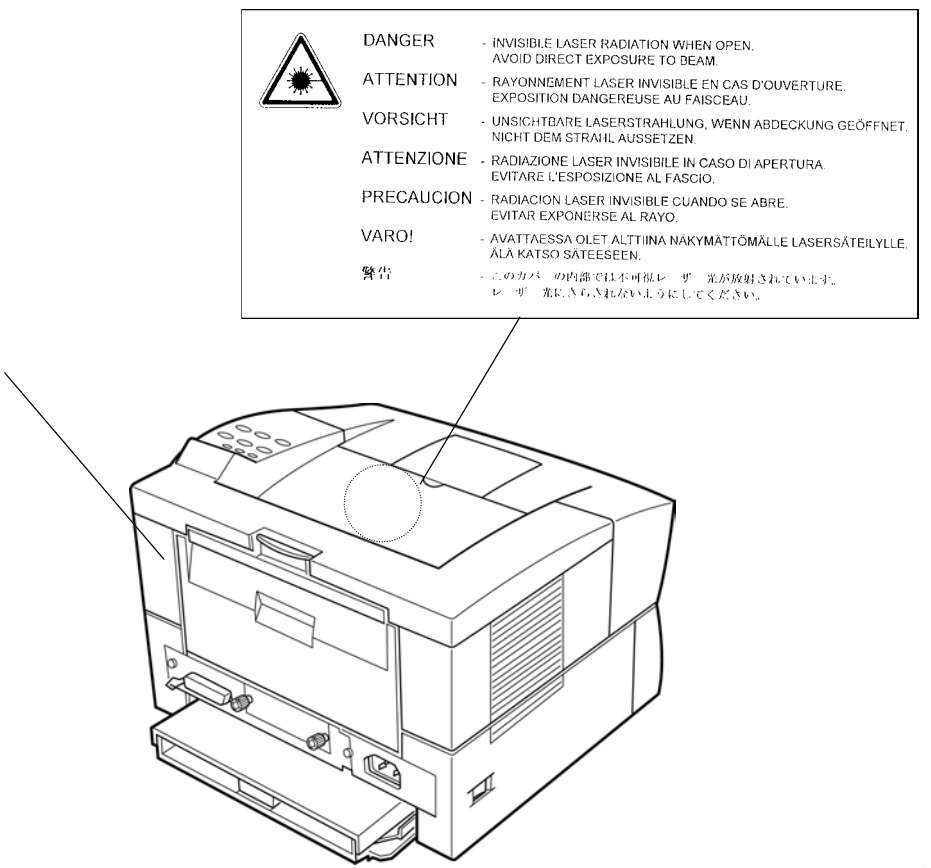
Caution: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

KYOCERA FS-800
120V~ 60Hz 5.6A
KYOCERA CORPORATION
MIE PLANT TAMAKI BLOCK
704-19 NOJINO, TAMAKI-TOWN
WATARAI-COUNTY, MIE PREF. JAPAN
MANUFACTURED : RM
THIS LASER PRODUCT CONFIRMS TO THE APPLICABLE REQUIREMENTS OF FEDERAL REGULATIONS 21 CFR CHAPTER 1, SUBCHAPTER J.
Tested To Comply With FCC Standards
FOR HOME OR OFFICE USE
8J68
UL 1950
c UL us LISTED
KYOCERA ECO-PRODUCT
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
MADE IN JAPAN

(U.S.A./Canada)



(Europe/Australia/Asia)


DANGER - INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ATTENTION - RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.
VORSICHT - UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
ATTENZIONE - RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.
PRECAUCION - RADIACION LASER INVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.
VARO! - AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
警告 - このカバーの内部では目に見えレーザー光が放射されています。レーザー光に当たらないようにしてください。

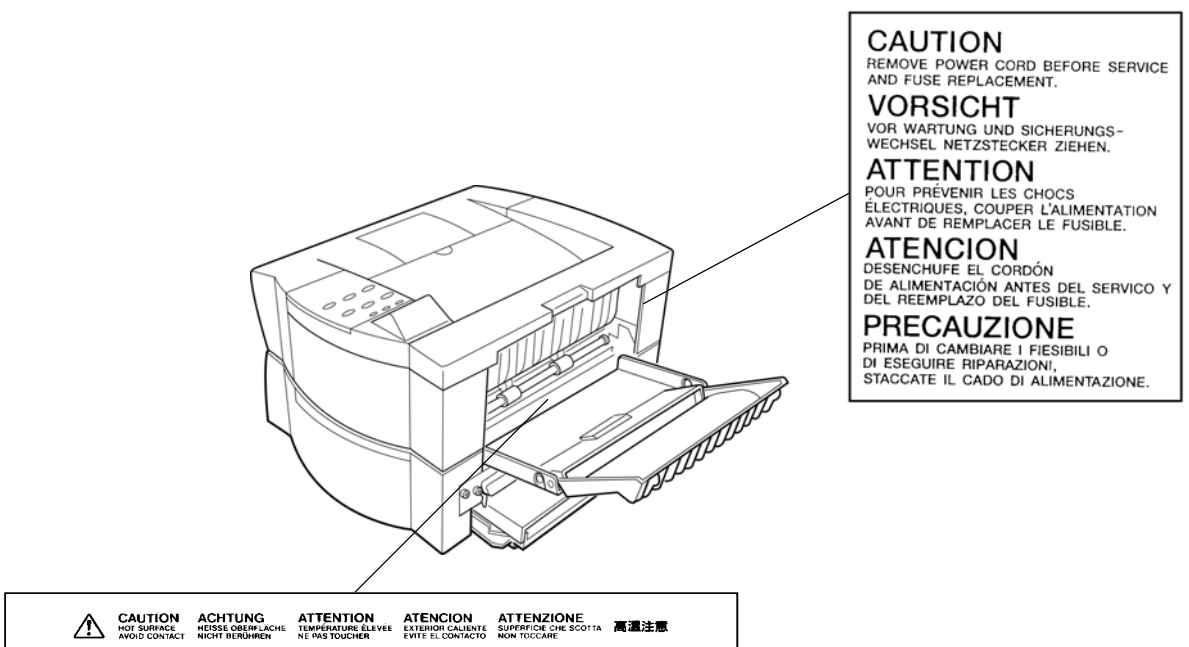
CDRH regulations

The Center of Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. These regulations apply to laser products manufactured after August 1, 1976. Compliance is mandatory for products marketed in the United States. A label indicating compliance with the CDRH regulations must be attached to laser products marketed in the United States.

Ozone concentration

The printers generate ozone gas (O_3) which may concentrate in the place of installation and cause an unpleasant smell. To minimize concentration of ozone gas to less than 0.1 ppm, we recommend you not to install the printer in a confined area where ventilation is blocked.

Caution labels


CAUTION
REMOVE POWER CORD BEFORE SERVICE AND FUSE REPLACEMENT.
VORSICHT
VOR WARTUNG UND SICHERUNGS-WECHSEL NETZSTECKER ZIEHEN.
ATTENTION
POUR PRÉVENIR LES CHOCS ÉLECTRIQUES, COUPER L'ALIMENTATION AVANT DE REMPLACER LE FUSIBLE.
ATENCION
DESENCHUFE EL CORDÓN DE ALIMENTACIÓN ANTES DEL SERVICO Y DEL REEMPLAZO DEL FUSIBLE.
PRECAUZIONE
PRIMA DI CAMBIARE I FIESIBILI O DI ESEGUIRE RIPARAZIONI, STACCATE IL CADO DI ALIMENTAZIONE.
CAUTION HOT SURFACE AVOID CONTACT
ACHTUNG HEISSE OBERFLÄCHE NICHT BERÜHREN
ATTENTION TEMPERATURE ÉLEVÉE NE PAS TOUCHER
ATENCION EXTERIOR CALIENTE EVITE EL CONTACTO
ATTENZIONE SUPERFICIE CHE SCOTTA NON TOCCARE
高温注意

IMPORTANT SAFEGUARDS

1. Read all of these instructions and save these instructions for later use.

2. Unplug this product from the wall outlet before cleaning.

3. Do not use this product near water.

4. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

5. Slots and openings in the cabinet and the back are provided for ventilation to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.

6. This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.

7. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

8. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating.

9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

10. Except as explained elsewhere in User's Manual, do not attempt to service this product yourself. Removing covers may expose you to dangerous voltage points or other risks. Refer all servicing in those compartments to service personnel.

11. Unplug this product from the wall outlet and refer servicing to qualified service person-nel under the following conditions:

A — When the power cord or plug is damaged or frayed.
B — If liquid has been spilled into the product.
C — If the product has been exposed to rain or water.
D — If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
E — If the product has been dropped or the cabinet has been damaged.

Canadian Department of Communications compliance statement

This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité aux normes du ministère des Communications du Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

ISO 7779

Maschinenlärminformationsverordnung 3. GSGV, 18.01.1991: Der höchste Schalldruckpegel beträgt 70 dB(A) oder weniger gemäß ISO 7779.

CE Marking Directive

according to *Council Directive 89/336/EEC and 73/23/EEC*

Manufacturer's name : Kyocera Corporation, Printer Division
Manufacturer's address : 2-14-9 Tamagawadai, Setagaya Ward, Tokyo 158-8610, Japan

declares that the product

Product name : Page Printer
Model number : FS-800 (as tested with enhancement optional units: PF-16 and IB-10)

conforms to the following product specifications.

EN 55 022:1994 Class B (EN55014:1993)
EN 61 000-3-2:1995
EN 61 000-3-3:1995

EN 50 082-1:1995
IEC 801-2:1991
IEC 801-3:1984
IEC 801-4:1988

EN 60 950:1992+A1+A2+A3+A4
EN 60 825-1:1994+A11

The manufacturer and its merchandising companies retain the following technical documentation in anticipation of the inspection that may be conducted by the authorities concerned.

User's instruction that conforms to the applicable specifications
Technical drawings
Descriptions of the procedures that guarantee the conformity
Other technical information

Declaration of Conformity (Australia)

Manufacturer's name: Kyocera Corporation, Printer Division
Manufacturer's address: 2-14-9 Tamagawadai, Setagaya Ward, Tokyo 158-8610, Japan

declares that the product

Product name: Page Printer
Model number: FS-800 (as tested with the enhancement optional unit: as Paper Feeder PF-16)

Description of device:
This Page Printer Model FS-800 is the 8ppm; A4 size and utilized plane paper; laser; dry toner etc..
The printer can be equipped with Paper Feeder PF-16 and/or Serial Interface Board as IB-10.

Conforms to the following product specifications.

AS/NZS 3548:1995	(EN 55 022:1994 Class B)
IEC 950:1991+A1+A2+A3+A4	(EN 60 950:1992+A1+A2+A3+A4)
IEC 60 825-1:1993	(EN 60 825-1:1994+A11)

The manufacturer and its merchandising companies retain the following technical documentation in anticipation of the inspection that may be conducted by the authorities concerned.

User's instruction that conforms to the applicable specifications
Technical drawings
Descriptions of the procedures that guarantee the conformity
Other technical information

KYOCERA ELECTRONICS AUSTRALIA PTY., LTD
Unit 6, 112 Talavera Road, North Ryde NSW 2113, Australia
Phone: +61 2-9888-9999
Fax: +61 2-9888-9588

Declaration of Conformity (U.S.A.)

Model Number:	FS-800
Trade Name:	Kyocera
Responsible Party:	Kyocera Electronics Inc
Address:	11465 John's Creek Parkway Suite #250 Duluth, GA 30097, U.S.A.
Telephone number:	770-623-2150
Fax number:	770-623-2151
Contact person for technical matter:	Paul Bosak
Phone:	770-623-2163

This device complies with Part 15 of the FCC Rules, Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Safety & EMI Requirements

IEC	IEC950:1991 (+A1+A2+A3) / (IEC 60 825-1:1998)
Laser requirements (U.S.A.)	FDA Title 21 CFR, Chapter 1, Subchapter J
c-UL	CSA C22.2 No.950-95, UL 1950: 3rd edition
FCC	Rules 47 CFR, Parts 2 and 15, subpart B, Class B
CDC	ICES-003 (3rd): 1997, Class B
AS/NZS	AS/NZS 3548: 1995, Class B

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Prolonged Non-Use and Moving the Printer

Prolonged Non-use
If you ever leave the printer unused for a long period of time, remove the power cord from the wall outlet.

We recommend you consult with your dealer about the additional actions you should take to avoid possible damages that may occur when the printer is used next time.

Moving the Printer
When you move the printer:

- Move it gently.
- Keep it as level as possible, to avoid spilling toner inside the printer.
- If you ship the printer, remove and ship the process unit separately. Pack the process unit in a plastic bag and ship them separate from the printer itself. Be sure to consult a serviceman before attempting long-distance transportation of the printer.

ENERGY STAR®

As an ENERGY STAR Partner, Kyocera Corporation has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

The basic objective of the ENERGY STAR Program is to reduce environmental pollution by encouraging the manufacture and sale of equipment that uses energy more efficiently.

This printer is equipped with a sleep timer function that conforms with the standards of the ENERGY STAR Program. This function makes it possible to reduce the amount of electrical power consumed

by the printer. For maximum power savings, turn off the printer's power supply when not using the printer for extended periods of time.

For details on the sleep timer function and printer power consumption, refer to the CD-ROM instruction manual provided with the printer.

Initial settings of the sleep timer function and power saved using the sleep timer function:

Initial sleep mode setting	Power consumption in sleep mode
15 minutes (30 minutes)	10 W (30 W)

( ): ENERGY STAR Program guideline

The action program Energy 2000

Energy partnership for a sustainable development. We get further – with all our energy.

Kyocera ECO-PRODUCT

This product has been developed and manufactured with the express interest of reducing the impact on the environment.

Using Kyocera's innovative cartridge free technology, Kyocera has created an advanced printing system that does not require the wasteful replacement and disposal of a cartridge.

Introduction

The Kyocera laser printer has many extremely desirable features. It was designed to make a contribution to a cleaner environment as well as to represent the latest generation of page printer technology.

Superb print quality

The latest technology from Kyocera such as KIR (Kyocera Image Refinement) function, this laser printer delivers superb print quality and clarity.

Long life modules

The main modules in this laser printer such as the drum, developer unit, and fuser unit, which are disposable in conventional printers, are specifically designed for extraordinarily long life and need no periodic replacement. The only maintenance regularly needed therefore is to replenish the toner supply in the developer approximately every 3,600 printed pages (A4 at a toner ceverage of approximately 5%) and to clean some parts inside the printer.

Environmentally benign waste parts

The toner container is made out of a benign, flammable material. (Be sure to dispose of containers according to local laws and regulations.)

Bitmap and scalable typefaces

In addition to its 80 bitmap fonts, the printer provides 45 fully-scalable resident typefaces that are equivalent to HP LaserJet fonts. The scalable typefaces can be used at any size desired up to 999.75 points, in 0.25-point increments.

A new printer control language, PRESCRIBE IIe

PRESCRIBE IIe provides features including advanced graphics capabilities that allow you to print any conceivable outline shape or solid form. Also provided are a variety of special effects, such as patterned fills, gray-scale shading, a user-accessible print image model, and multiple page orientations and print directions within the same page.

KPDL (Kyocera Printer Description Language)

The printer is equipped with KPDL (Kyocera's implementation of the PostScript page description language) and Adobe PostScript Type 1 compatible 35 fonts.

PDF417 two-dimensional bar code

The printer includes the capability that allows the user to implement the two-dimensional stacked bar code symbology, PDF417, or Portable Data File 417. This expanded functionality is achieved by using the PRESCRIBE IIe language commands.

Automatic rotation of fonts and graphics

Images and scalable fonts are automatically rotated to match the page orientation.

A wide variety of internal symbol sets

The printer supports most HP LaserJet 5Si compatible symbol sets for both bitmap and scalable fonts.

Display of printer messages in any of eight languages

English, German, French, Italian, Spanish, Danish, Swedish, or Japanese.

Simple Network Management Protocol (SNMP) compliance

The support for SNMP offers network managers complete open system network management.

Expandable interface

Equipped with a slot for installing optional interface, the interface of this printer can be expanded to meet the operating environment.

Options

The following options are available for this printer.

PF-16	Paper feeder (250-sheet capacity [80g/m^2, 0.11-mm paper thickness])
IB-10	Serial interface board kit

Guide to Manual

CD-ROM (Kyocera Digital Library)
The CD-ROM supplied contains the printer User's Manual, PRESCRIBE IIe Programming Manual, and PDF417 Two Dimensional Bar Code Implementation Manual. To gain access to these documents, insert the CD-ROM into the appropriate drive and follow the instructions on the insert accompanying the CD-ROM. To view these documents, you need the Adobe Acrobat software installed in your computer. For details, read the instructions on the CD-ROM package.

The User's Manual guides you through topics concerning the operations and maintenance of the printer.

The PRESCRIBE IIe Programming Manual explains how to use the PRESCRIBE IIe commands in document files for formatting, and their parameters in detail for experienced users, using pictures and samples.

Contents

Chapter 1 Installing the Page Printer..... 1-1

Environmental Requirements of the Page Printer....1-2
Unpacking and Inspection....1-6
Moving the Printer....1-8
Names of Parts....1-9
Setup and Connections....1-11
Expanding Memory....1-32

Chapter 2 Operating the Page Printer..... 2-1

Control Panel....2-2
Operating Procedures....2-9
Mode Selection Menu....2-20
Paper Cassette Sheet Size Setting....2-23
Sleep Timer Setting....2-24
Dumping Received Data....2-25
KIR Level....2-26
Ecoprint Mode....2-28
Resource Protection....2-29
Manual Paper Feeding....2-30

Chapter 3 Fonts *3-1*
Fonts *3-2*
List of Fonts *3-3*
Symbol Set *3-8*

Chapter 4 Maintenance *4-1*
Toner Container Replacement *4-2*
Cleaning *4-9*

Chapter 5 Troubleshooting *5-1*
General Guide *5-2*
Print Quality Problems *5-4*
Indicators and Messages *5-8*
Correcting a Paper Jam *5-12*

Chapter 6 Symbol Set Tables *6-1*
HP LaserJet 5Si Symbol Sets *6-2*

Appendix A Printer Specifications *A-1*

Appendix B Paper Selection *B-1*

Appendix C Host Computer Interface *C-1*

Index *Index-1*

Chapter 1 Installing the Page Printer

This chapter uses illustrations to explain the names of parts of this printer, how to use it, its environmental requirements, and how to install it.

Environmental Requirements of the Page Printer 1-2
Unpacking and Inspection..... 1-6
Moving the Printer 1-8
Names of Parts 1-9
Setup and Connections..... 1-11
Expanding Memory 1-32

Environmental Requirements of the Page Printer

Places to Avoid

Avoid installing the printer in locations subject to:

- Direct drafts of hot or cold air
- Direct drafts from outside (Avoid locations near doors leading outside.)
- Sudden temperature or humidity changes
- Sources of high temperature, for example, near stoves or radiators
- Excessive dust
- Vibration
- Ammonia or other harmful fumes. (If you are planning to fumigate the room, or make liberal use of insecticide, remove the printer first!)
- Excessive sunlight or humidity
- Lack of ventilation
- Low air pressure, e.g., located more than 2000 meters (6500 feet) above sea level.

Basic requirements

The printer will work best if it is installed in a location that is:

- **Near the computer**
  If the parallel interface is used to connect the printer to the computer, the connecting cable should be shielded type and not be longer than 3 meters (10 feet).

- **Level and well supported**
  Place the printer on a sturdy table or desk. Do not place the printer on an unstable cart, stand, or table. The printer may fall, causing injury, or serious damage to the printer.

- **Near an AC wall outlet, preferably one that can be used for the printer alone (see section *Power Supply* on next page.)**

- **Only use this printer under the voltage listed on the serial number label attached to the rear panel of the printer.**

Power requirements are:

Voltage	120 V (U.S.A.), 220–240 V (European countries, Australia, Asia) ±10% at each voltage
Frequency	60 Hz (120 V), ±2% 50 Hz (220–240 V), ±2%
Current capacity	Max. 5.6 A at 120 V, or Max. 2.8 A at 230 V

The outlet should be earthed, or an adapter should be used.

If an extension cord is used, the total length of the power cord plus extension should be 5 meters (17 feet) or less.

- **Well ventilated, not too hot or cold, and too damp or dry**

Temperature	10°C to 32.5°C, ideally about 23°C (50°F to 90.5°F, ideally about 73.4°F)
Humidity	20% to 80%, ideally 60%

If you install the printer where the temperature or humidity is outside the above ranges, you may not get the best print quality, and there will be an increased chance of paper jams.

Power Supply

The printer should not be on the same power circuit as an air conditioner, fluorescent light, copier, or shredder, because these devices generate electrical noise on the power line. If it must share a power circuit with equipment like this, a high-frequency noise filter or isolation transformer is advisable. (Filters and transformers are available commercially.)

Avoid using plug multipliers to connect a large number of devices on the same circuit as the printer.

If the power from the outlet itself appears to be unstable, a line stabilizer should be used. In places where the voltage tends to fluctuate, it may be necessary to install a voltage regulator.

As the disconnect device is not incorporated in the printer's AC primary circuit, an easily accessible socket outlet must be provided near the equipment.

Da kein Trennschalter in den Wechselstrom-Primärkreis des Druckers eingebaut ist, muß eine leicht zugängliche Steckdose in der Nähe des Gerätes vorhanden sein.

Grounding

Be sure to connect the ground wire for the printer's power supply to the ground terminal of the power outlet, to a copper pole buried at least 65 cm (25 inches) in the ground, or to a water pipe approved by the water department for use as a ground.

WARNING

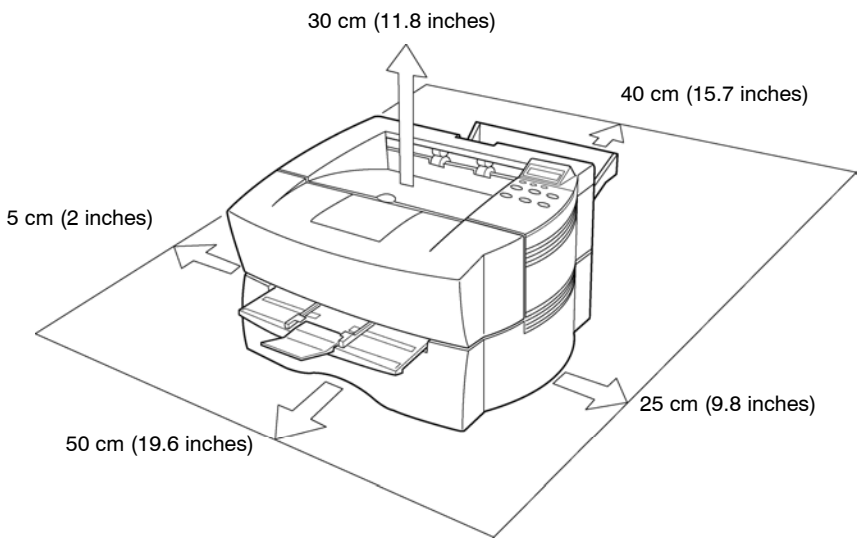
Never use a gas pipe as a ground, as this may result in fire.

Surrounding space

Space surrounding the location where the printer is installed is required as shown below for purposes of ventilation and maintenance.

WARNING

Be sure to secure enough space surrounding the printer. Continued use without enough space may cause heat to build up within the printer, resulting in fire.



Basic handling precautions

Removing or changing parts other than disposable parts is prohibited. For repairs, contact the Kyocera dealer from which you purchased the printer.

When moving the printer to a new location, contact the Kyocera dealer from which you purchased the printer.

Using this printer to print currency or negotiable bonds is in violation of the law.

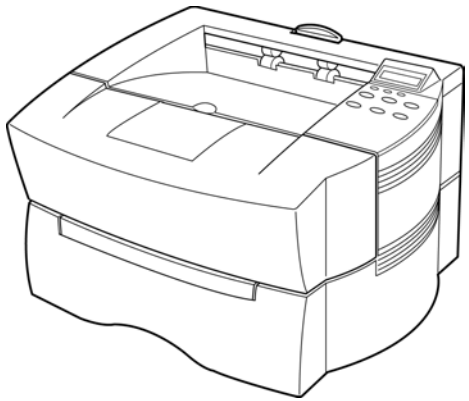
Unpacking and Inspection

Remove the printer from the package according to the steps given below. After removing the printer, check that nothing is missing against the list of packaged contents.

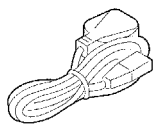
1. Place the box containing the printer on a flat, stable surface.
2. Remove the User's Manual, Toner Container and other items located on top of the spacer and remove the spacer.
3. Carefully remove the printer.

List of packaged contents

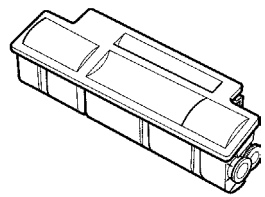
Contents of Printer Box



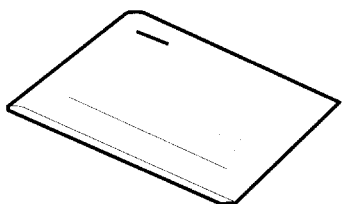
Printer (FS-800)



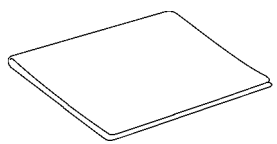
Power Cord



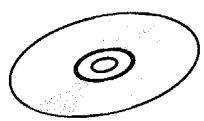
Toner Container (TK-16H)



User's Manual



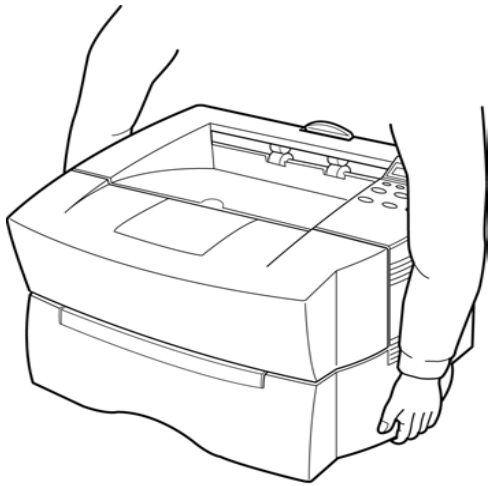
Cleaning Cloth



Kyocera Digital Library CD-ROM

Moving the Printer

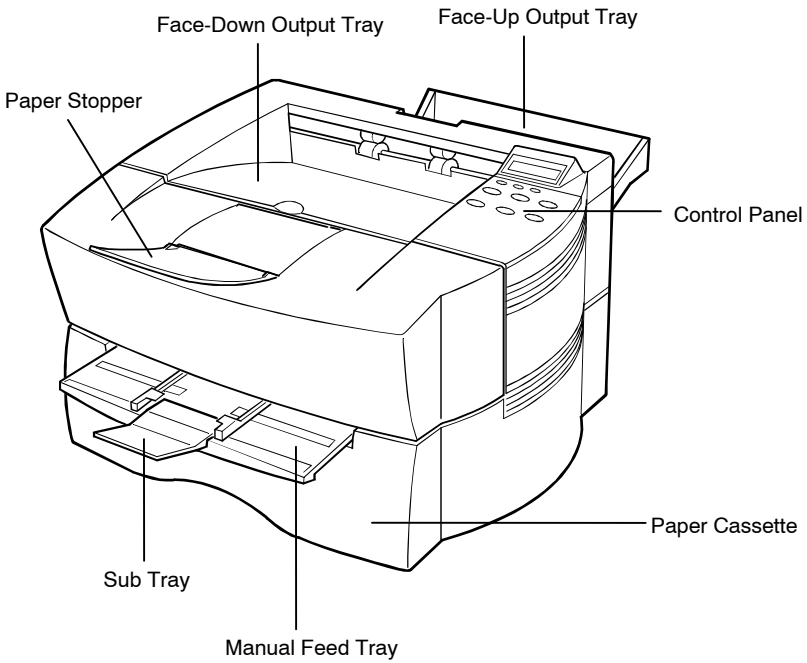
Note the following items when moving the printer.

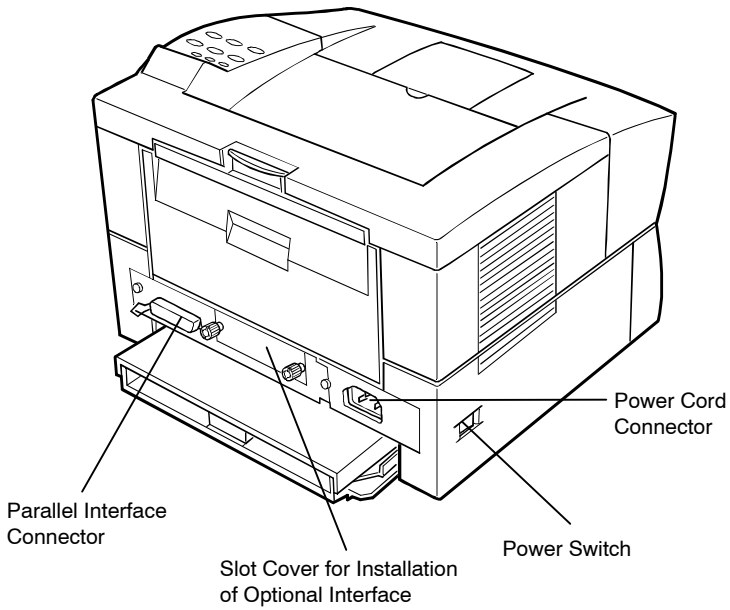


Be sure to lift the printer gently, keeping it horizontal, to prevent toner from soiling the inside of the printer.

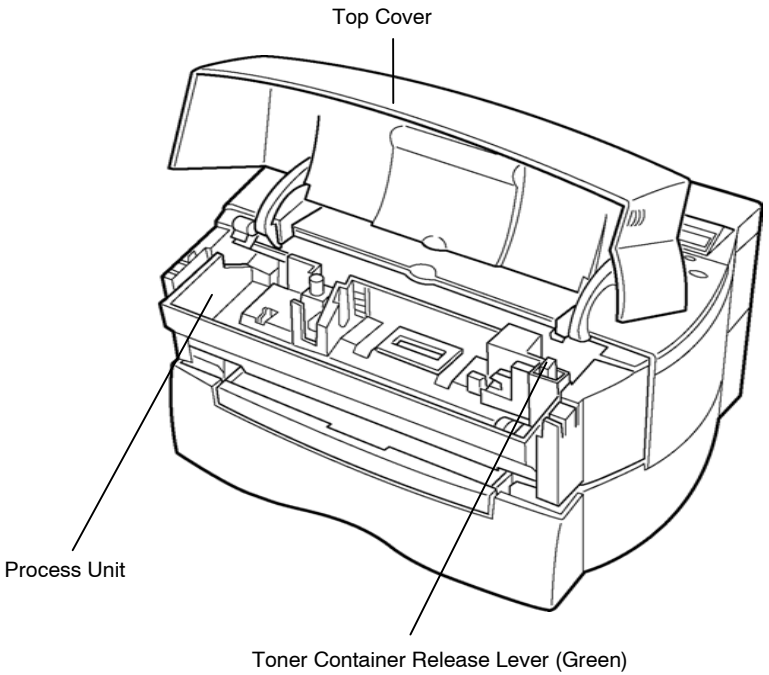
Names of Parts

Front View





Interior View



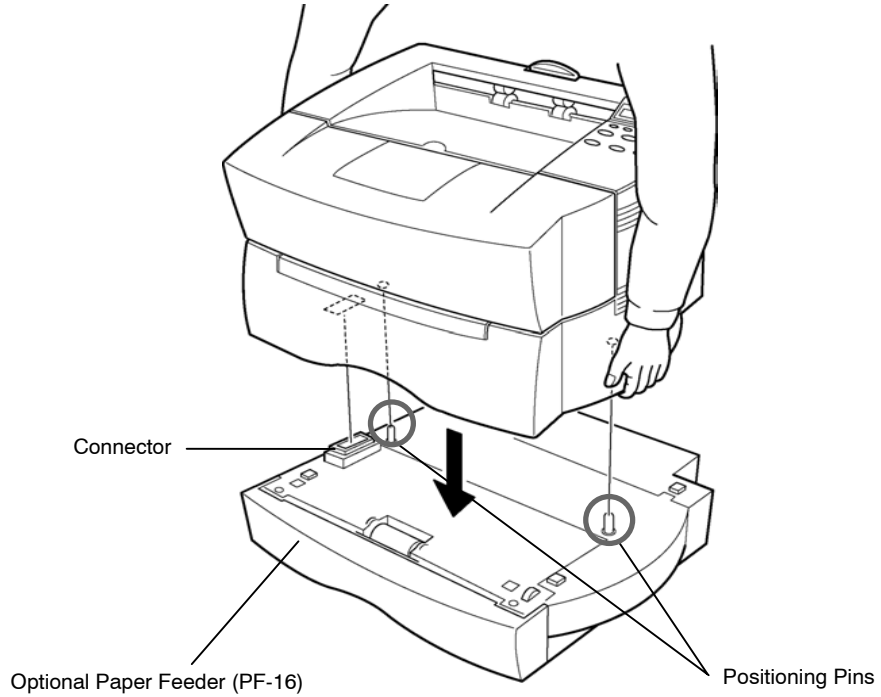
Setup and Connections

Set up the printer according to the following steps.

1. Install the printer on the paper feeder. (Option) ..... (See p.1-12)
2. Remove the process unit protective cover. ..... (See p.1-13)
3. Install the toner container. ..... (See p.1-15)
4. Close the top cover. ..... (See p.1-16)
5. Add paper. ..... (See p.1-17)
6. Open the paper stopper on the face-down tray. ..... (See p.1-20)
7. Open the face-up output tray (when the tray is being used). ..... (See p.1-20)
8. Connect the printer to the computer. ..... (See p.1-21)
9. Attach the power cord. ..... (See p.1-23)
10. Test the printer. ..... (See p.1-24)
11. Test the interface with the computer. ..... (See p.1-25)
12. Install the printer driver. ..... (See p.1-26)

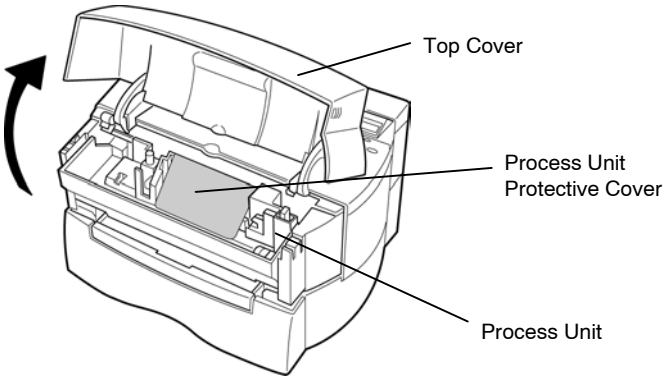
1. Install the printer on the paper feeder. (Option)

Align the installation holes on the bottom of the printer with the positioning pins on top of the paper feeder and slowly lower the printer into place. Check that the connector on top of the paper feeder is properly connected to the connector on the bottom of the printer.

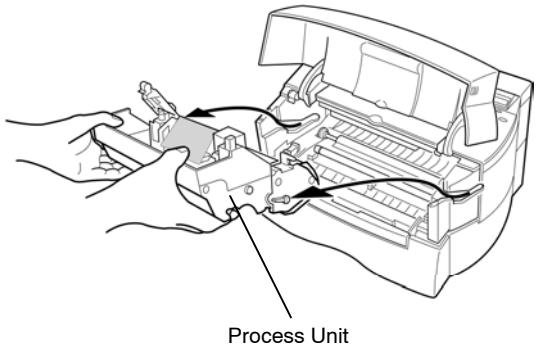


2. Remove the process unit protective cover.

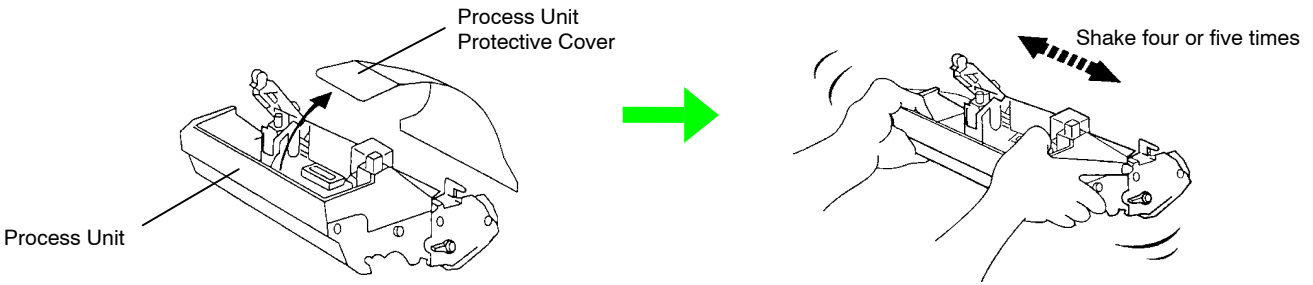
1. Open the printer top cover all the way.



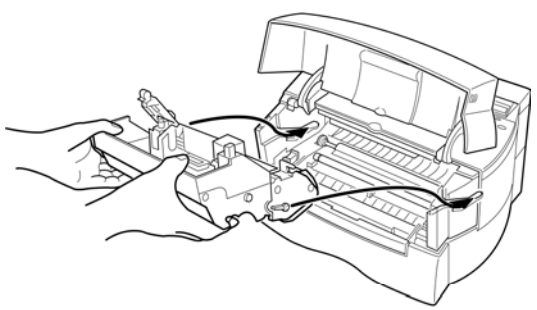
2. Lift the process unit out of the printer. **The drum in the process unit is sensitive to light. Do not expose the drum even to normal office lighting (500lux) for more than five minutes.**



3. Pull and remove the process unit protective cover and give the process unit a horizontal shake of 4 to 5 times.

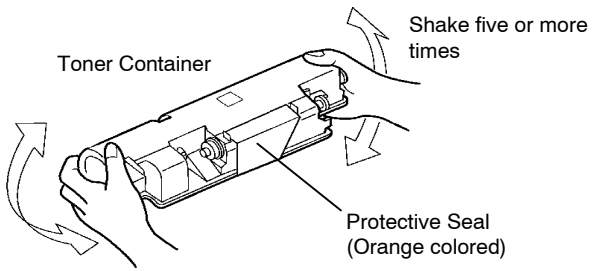


4. Install the process unit in the printer. In doing so, carefully align the guides at the both ends of the process unit properly with the slots in the printer.

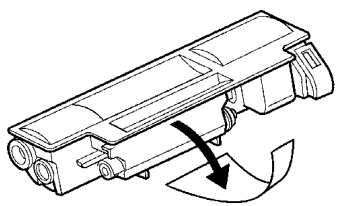


3. Install the toner container.

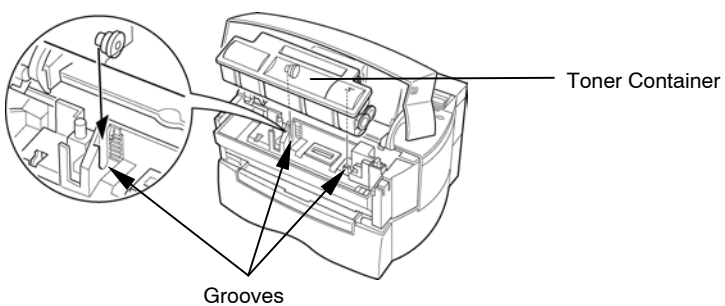
1. Take the toner container from the bag. Shake the toner container with the protective seal (orange colored) facing up as shown in the figure five times or more to thoroughly mix the toner inside.



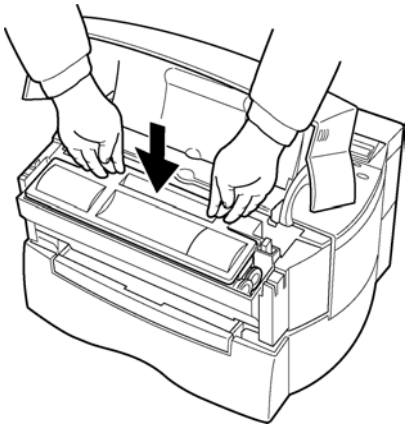
2. Carefully remove the protective seal as shown in the diagram.



3. Align the ends of the toner container with the grooves to the left and right inside the and install.

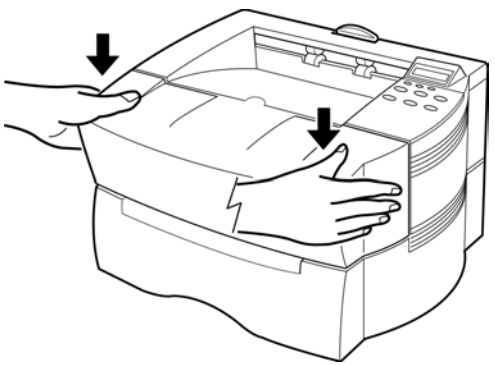


4. Check that the toner container is installed in the correct position, and push forcefully on the top of the toner container at “PUSH HERE.”



4. Close the top cover.

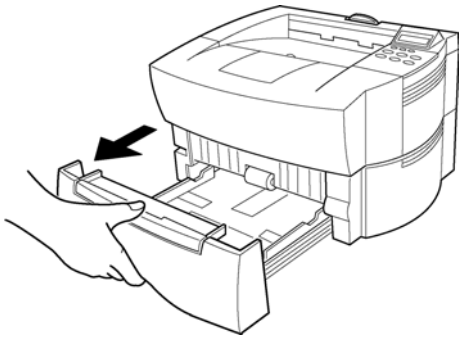
Close the top cover.



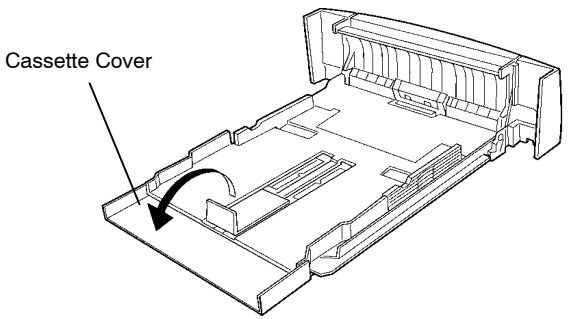
5. Add paper.

Try as much as possible to use fresh paper which has just been opened. Paper which has been stored long periods contains moisture and may result in sheets sticking together and/or paper jams. For specifications on the paper which can be used with this printer, refer to **Appendix B Paper Selection**.

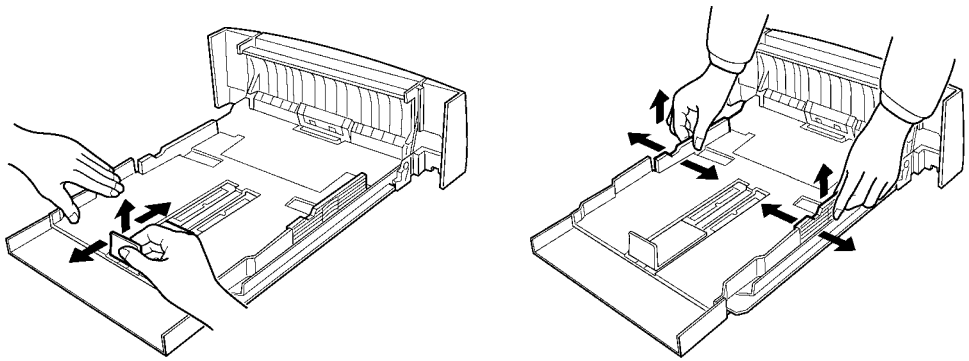
1. Pull the paper cassette all the way out of the printer.



2. Open the cassette cover all the way.



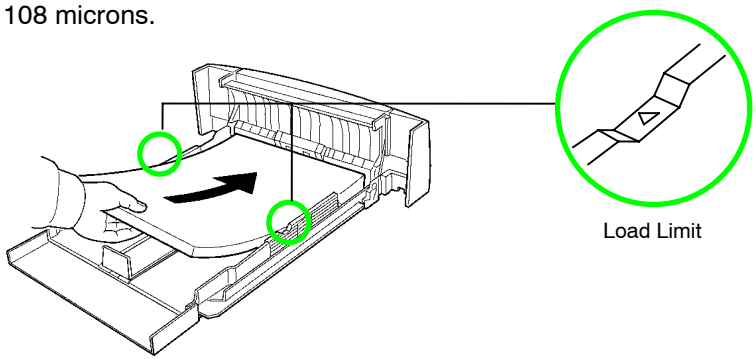
3. Adjust the position of the paper stopper located at the rear of the cassette. While holding up the paper stopper, slide the paper stopper to the desired paper size.



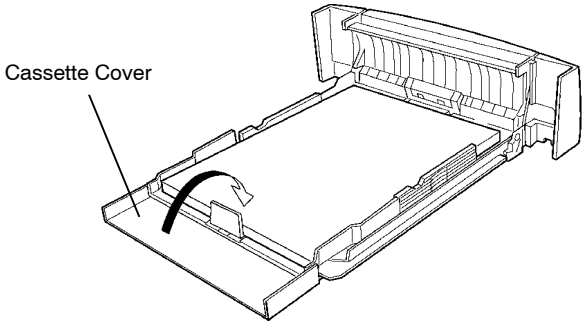
4. Adjust the position of the paper guides located on the left and right side of the cassette. Align the paper guides to the desired paper size by lifting the paper guides so they slide.

Move the side guides inward to where they just touch the edges of the paper.

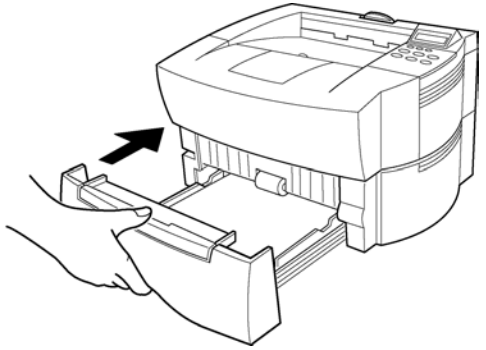
Do not load more paper than will fit under the load limits on the top of the paper guides. (The cassette will hold approximately 150 sheets of paper with a 80 g/m^2 (21 lb) basis weight, or with a thickness of 108 microns.



5. Close the cassette cover.

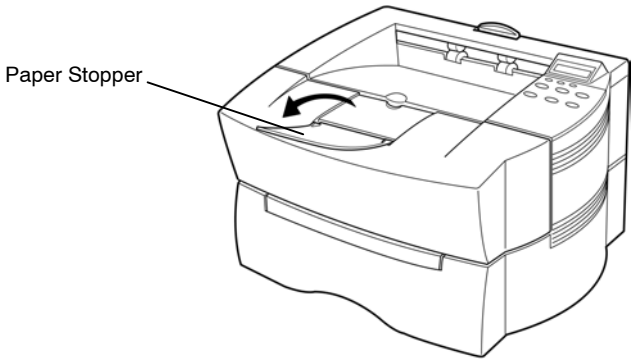


6. Insert the paper cassette into the slot in the printer. Push it straight in as far as it will go.



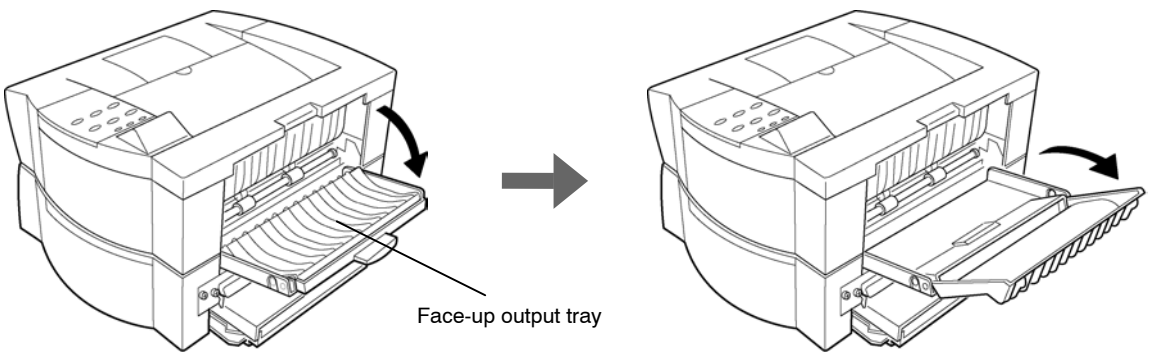
6. Open the paper stopper on the face-down tray.

Raise the paper stopper on the face-down tray as shown in the figure.



7. Open the face-up output tray (when the tray is being used).

Use the face-up output tray when you wish paper to be stacked with the printed side facing up (reverse order). The face-up output tray is located on the back side of the printer. Use it by opening as shown in the figure.

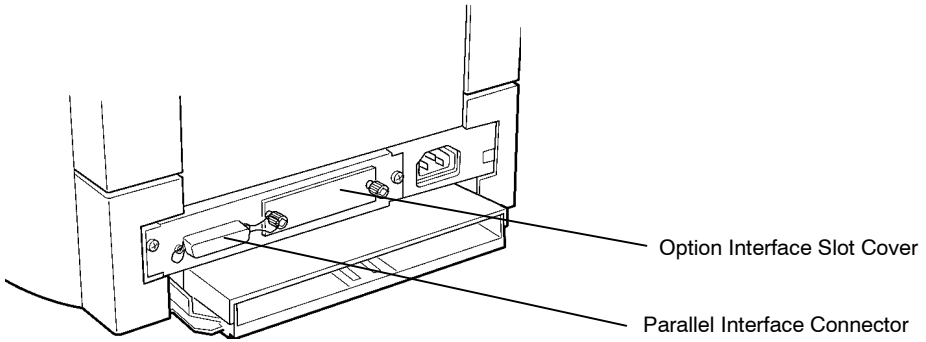


8. Connect the printer to the computer.

CAUTION

Before performing this step, be sure to turn off the printer's power switch and unplug the power plug from the power outlet. Failure to do so may result in electric shock.

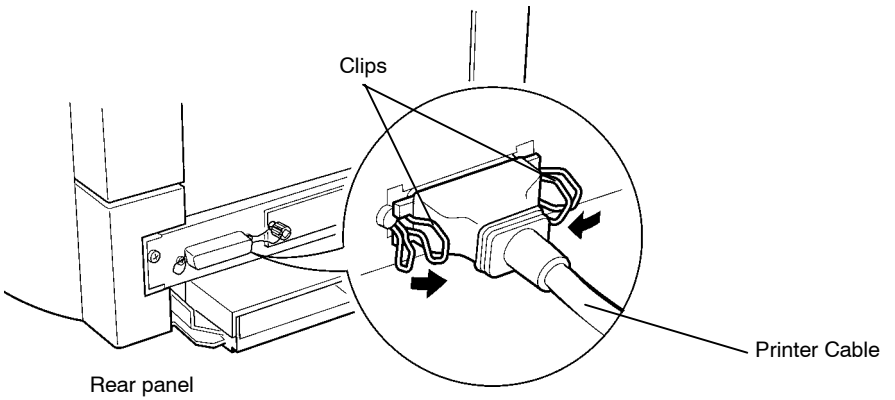
A standard Centronics parallel interface connector ( ) is located on the rear side of the printer. For pin connections, please refer to **Appendix C**.



Parallel Interface Connection

1. Plug one end of the printer cable into the connector on the printer marked with a (parallel) symbol.

2. Close the clips on both sides to fix the connector in place.



3. Plug the other end of the printer cable into the computer's parallel (Centronics) interface connector. This connector is usually labeled PRINTER. For details, refer to the hardware manual for the computer.

9. Attach the power cord.

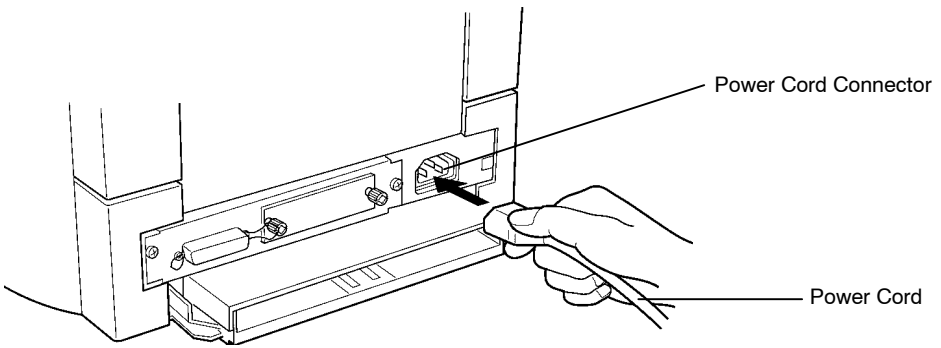
CAUTION

Be sure the printer's power switch is turned off.

Note

Only use the power cord supplied with the printer.

1. Plug the power cord into the power cord connector on the rear side of the printer.



2. Connect the other end of the power cord into a power outlet.

WARNING

Be sure to connect the ground wire of the printer to ground.

10. Test the printer.

Use the following procedure to test the printer and print out a status page indicating factory settings. For details on the indicators and keys on the printer's control panel, please refer to **Chapter 2 The Control Panel**.

1. Turn on the printer's power switch.

It does not matter whether the computer's power is on or off. Self test will be displayed in the message display of the printer

Note

An error message Top cover Open will be displayed in the printer's message display unless the top cover on the printer is properly closed or the process unit is correctly installed. If this happens, check that the top cover is properly closed and the process unit is correctly installed.

2. Wait until the ON LINE indicator lights and Ready appears in the message display.

If the ON LINE indicator is off, make it light by pressing the **ON LINE**/+ key.

3. Press the **ENTER**/**STATUS** key. Information such as the memory allocation, etc., currently set for the printer will be printed on a page in a list.

If the status page prints without problems, you can tell that the developer unit and paper feed cassette are installed properly. For details on the contents of the status page, see **Chapter 2**.

11. Test the interface with the computer.

In order to check that the printer and the computer are properly connected you must print by sending an actual command from the computer.

1. Turn on the printer's power switch and turn on the computer's power as well.
2. Wait until the ON LINE indicator lights.
3. Enter and execute the following command at the DOS prompt on the computer screen.

```
ECHO !R! STAT; EXIT;>PRN
```

If this causes the printer to print a status page, then the printer and computer are properly connected. If this does not print a status page, check that the printer cable is properly connected. The cable or one of the connectors may also be broken.

Notes on Application Software

The computer and printer have been successfully connected by the procedures up to this point. In order to print from software run on the computer, it is necessary to install a printer driver on the computer to which the printer is connected. After the printer driver is installed, be sure to make proper printer settings from within the software.

12. Install the printer driver.

A CD-ROM containing a printer driver for Windows (Windows 3.1, Windows 95 and Windows NT 3.51/4.0) is supplied with this printer. Once this printer driver is installed on the computer, it is possible to make various settings for this printer from within Windows applications. It is also possible to control options and printing from within Windows.

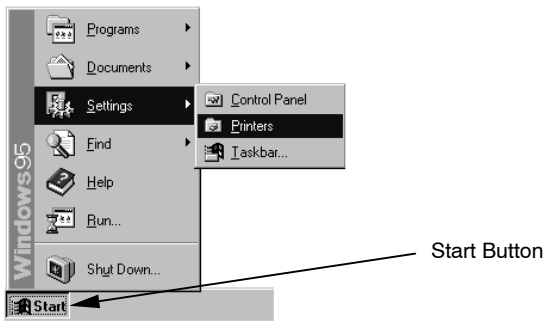
For each of these operating systems, the printer driver is located in the folder on the CD-ROM. The steps for installing this driver are given below. Read this in conjunction with the manual supplied with Windows.

For details on how to install the printer driver under Windows NT, read the file README.TXT in the CD-ROM's root directory.

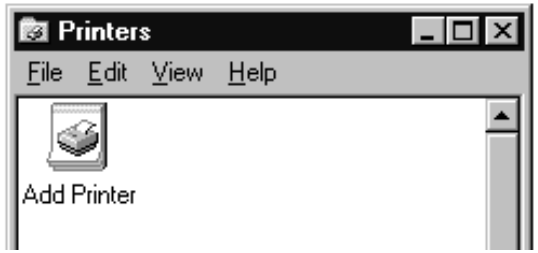
Installing Under Windows 95

1. Insert the supplied CD-ROM into the CD-ROM drive of the computer.

2. Click on “Start” with the mouse on the Windows 95 Task Bar, and align the cursor with “Settings.” Click on “Printers” among the items displayed.



3. The printer folder will open. Double click on “Add printer.”

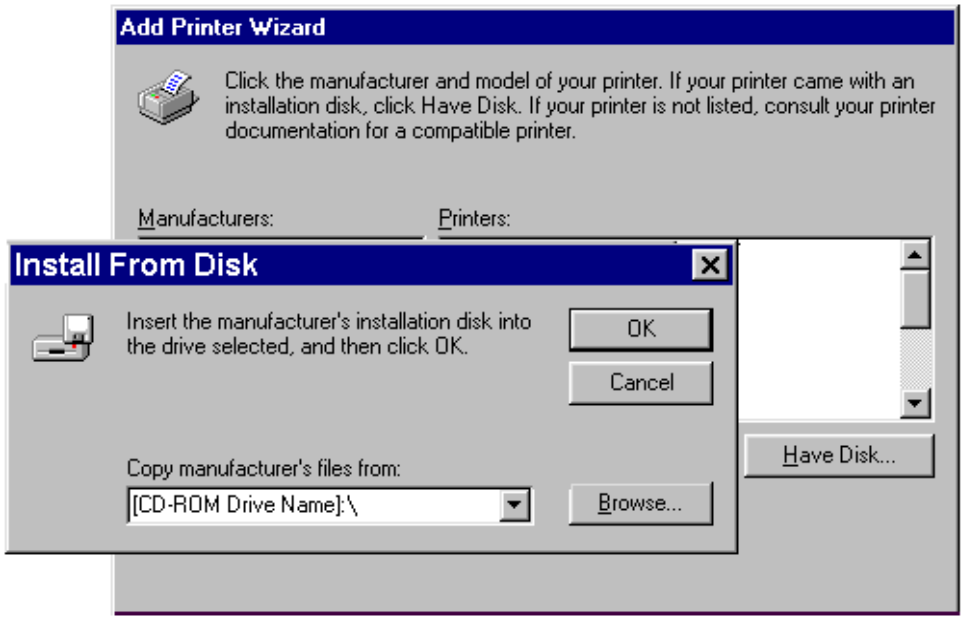


4. The Printer Wizard screen will appear. Click on “Next >.”

5. A screen for selecting the printer to be either a local printer or network printer will appear. Select the appropriate connection and click on “Next.”

6. Next, “Click the manufacturer and model of your printer....” screen will appear. At this point, select “Have Disk…” located at the lower right. (See the figure for **Step 7**.)

7. Enter “[CD-ROM Drive Name]:\” as the source from which to copy the file and click on “**OK**.”


Add Printer Wizard
Click the manufacturer and model of your printer. If your printer came with an installation disk, click Have Disk. If your printer is not listed, consult your printer documentation for a compatible printer.
Manufacturers:
Printers:
Install From Disk
Insert the manufacturer's installation disk into the drive selected, and then click OK.
OK
Cancel
Copy manufacturer's files from:
[CD-ROM Drive Name]:\
Browse...
Have Disk...

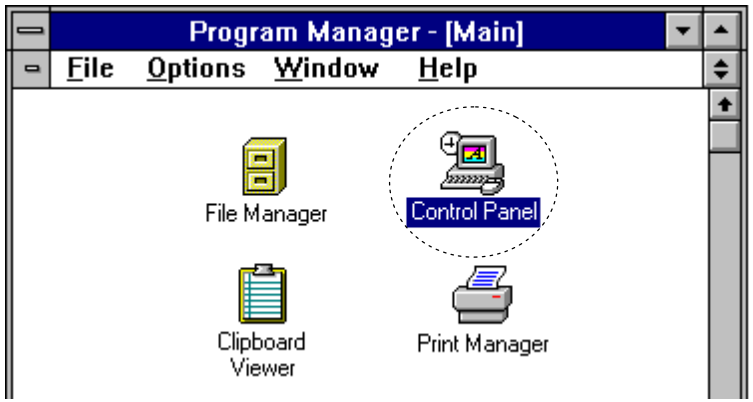
8. Select “Kyocera FS-800,” click on “Next >,” and follow the on-screen instructions to install. Once the driver has been properly installed, a Kyocera printer icon will be added to the Printers folder.

Note

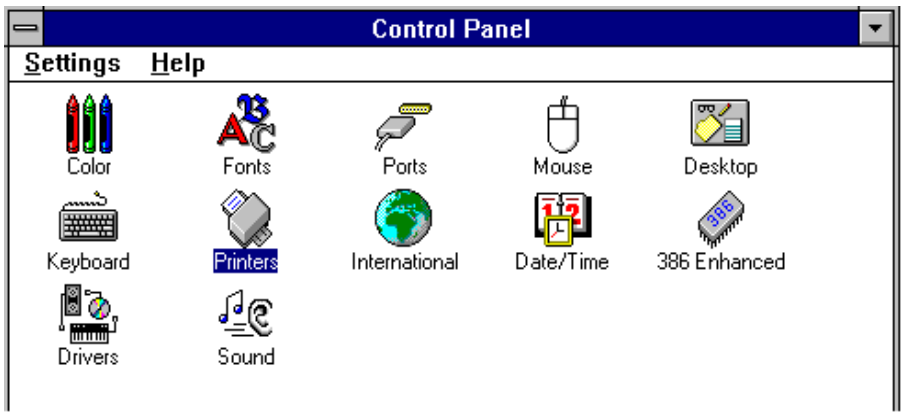
When printing under Windows 95, be sure to set the emulation of this printer to HP LaserJet 5Si (default setting).

Installing Under Windows 3.1

1. Insert the supplied CD-ROM into the CD-ROM drive of the computer.
2. Double click on the Control Panel.

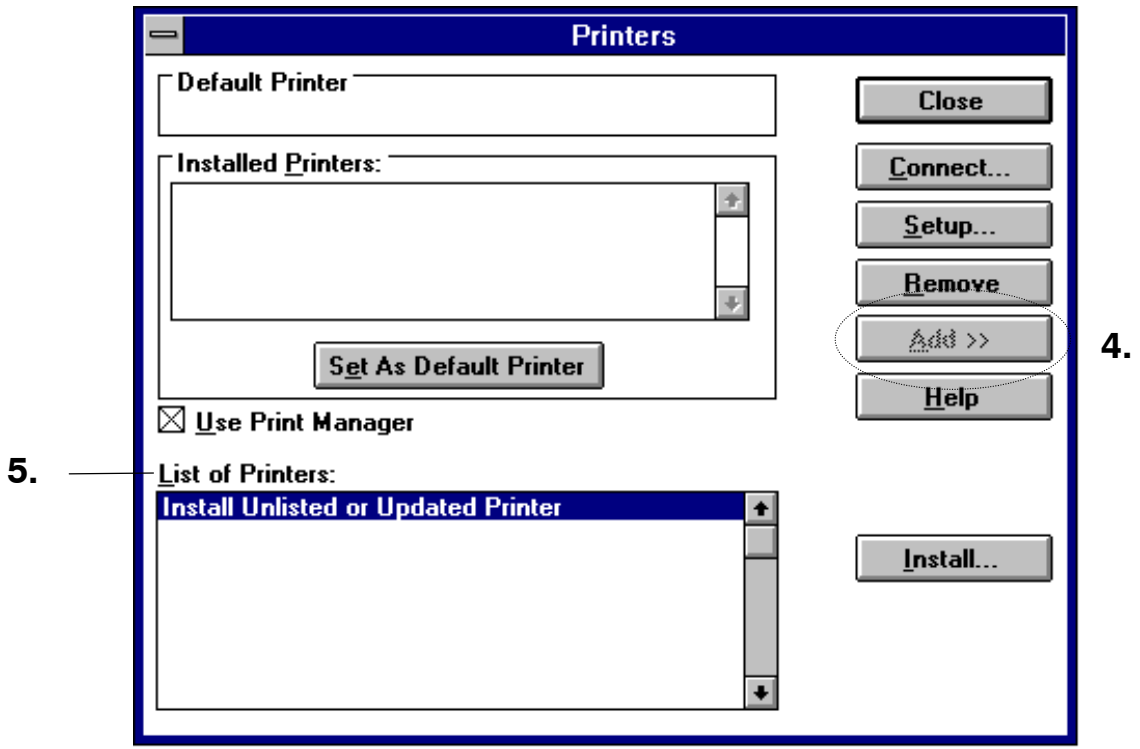


3. Double click on “Printers.”



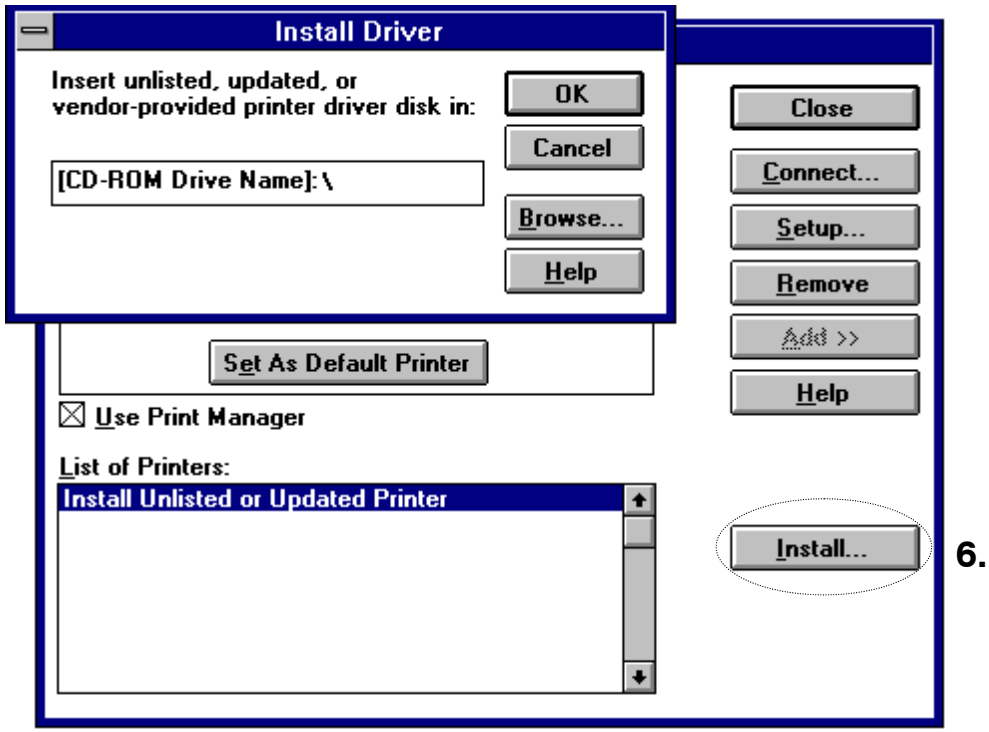
4. Click on “Add >>.”

5. A screen for “List of Printers:” will appear. From the choices, click on “Install Unlisted or Updated Printer.”



6. Click on “Install….”

7. The Install Driver menu will appear. Enter “[CD-ROM Drive Name]: \” and click on “OK.”



8. Refer to the Readme.txt file at the root directory of the CD-ROM and browse to the directory which contains the appropriate drivers for your country.

9. Select “Kyocera FS-800” from the printers displayed and click on “OK.” Once the driver has been installed, close the Control Panel by clicking on “Close.”

Expanding Memory

The printer comes standard equipped with 4 MB of main memory. However, more complex pages can be printed and processing speed increased by expanding the printer's memory. There is one slot available in the printer for expanding memory. Printer memory can be expanded to up to 36 MB by installing optional extended memory chip (SIMM) in the slot.

Note

The expansion memory should be installed only by a Kyocera authorized dealer or Kyocera certified technician. Kyocera shall not be liable for damage due to improper installation of the expansion memory.

Memory Required by the Printer Environment

It may be necessary to extend memory depending on the operating environment of the printer. Please refer to the table below for minimum memory requirements in various environments.

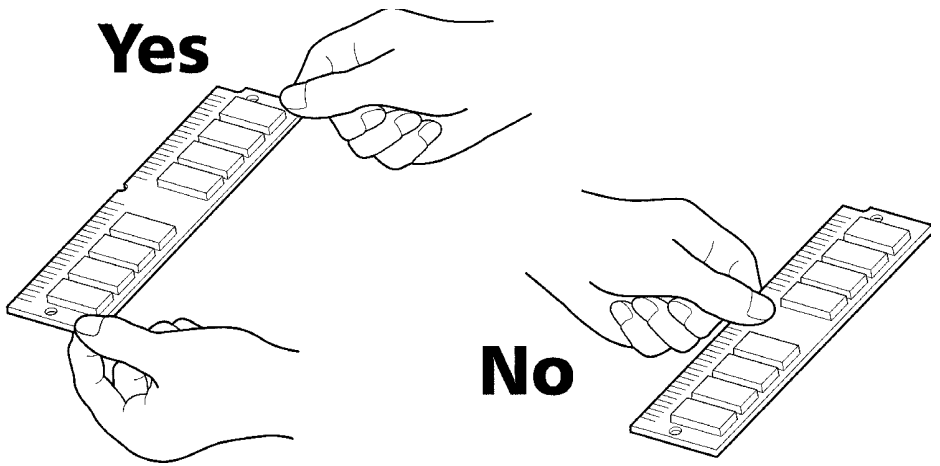
Environment	Resolution	
	300 dpi	600 dpi
HP LaserJet 5Si/KPDL	4 MB	4 MB
HP LaserJet 5Si/KPDL, resource protection	—	10 MB

The description given below is intended for service personnel.

Precautions on the Handling of Extended SIMM

Static electricity which may accumulate in the human body through walking on carpets or other such surfaces is the enemy of SIMM loaded with many semiconductor chips. Pay attention to the following things before installation to protect memory chips against damage from static electricity.

- Do not remove the SIMM from their anti-static bag until immediately prior to installation.
- Eliminate any static electricity from your body through grounding before touching the SIMM.
- Be absolutely sure when handling the SIMM to hold them by the substrate without touching the printed connector section.



Installing SIMM

Insert the SIMM into the socket on the printer's main board.

WARNING

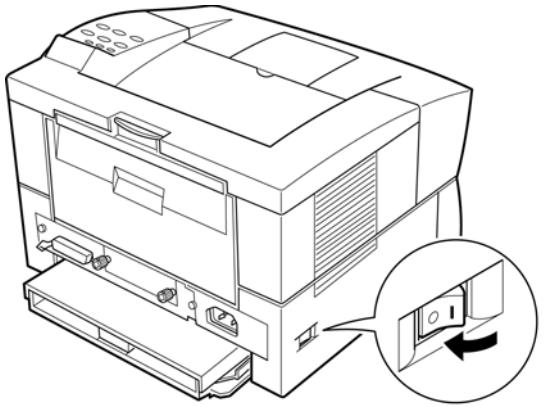
Take precautions that no foreign substances such as metal chips or liquid get inside the printer during the installation process. Operation of the printer during the presence of a foreign substance may lead to fire or electric shock.

CAUTION

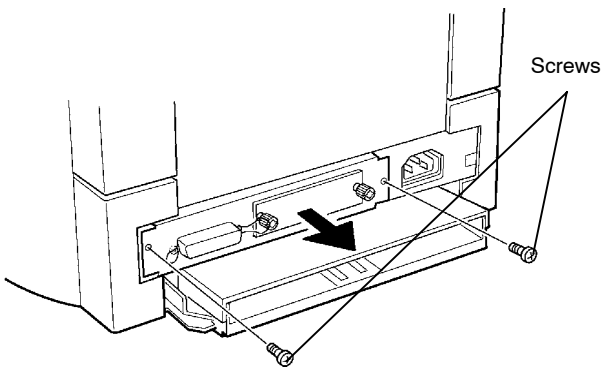
Be sure to turn off the printer's power and disconnect all cables when installing SIMM in the printer. Failure to do so may lead to electric shock.

Draw the main circuit board all way out of the printer as follows:

1. Turn the printer's power off. Unplug the printer's power cable and disconnect it from the host computer.



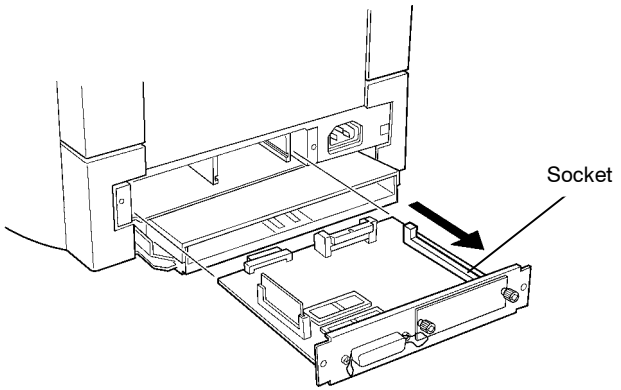
2. Remove the two screws from the printer's rear cover.



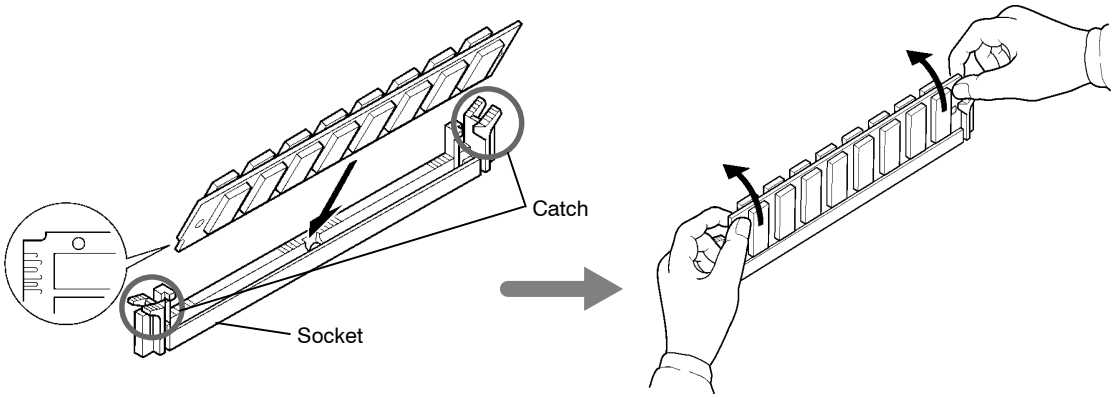
3. Pull the main circuit board all the way out of the printer.

Caution

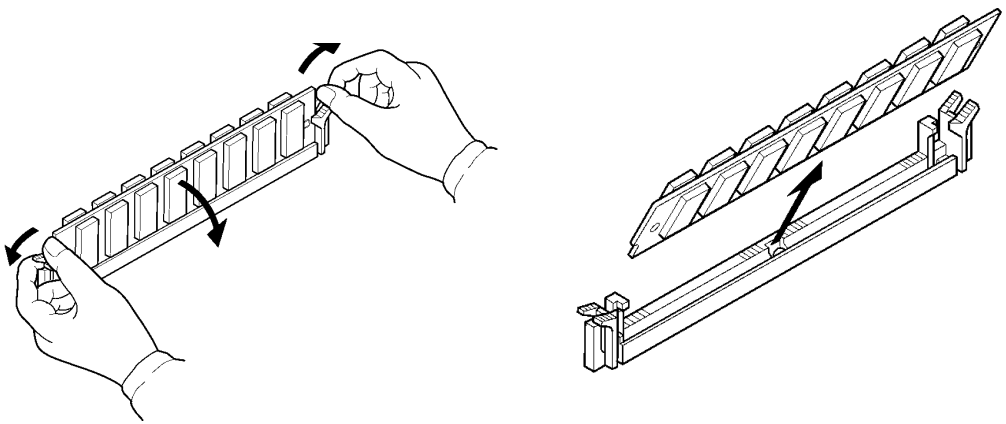
Before pulling the main board out, clean the area on the table, etc., at the back of the printer's rear panel. Foreign objects, if accidentally stuck to the back of the main board, may cause serious damage to the printer.



4. Insert the connector end of the SIMM into the socket. Carefully push the board upright until it snaps into place. Make sure that the catches at the ends of the socket fit into the holes at the ends of the SIMM board.



5. To remove the SIMM, carefully pull the end catches sideways slightly and tilt the SIMM to the left as shown, then pull the SIMM out of the socket.



After SIMM has been installed in the printer, use the following procedure to check that installation has been performed properly.

Testing Extended Memory

1. Check that the power switch is off, plug the power cord into the printer, and turn the power on.

2. Wait for the printer's ON LINE indicator to light and the message display to read Ready, then press **ENTER**/**STATUS** key briefly.

3. If installation has been performed properly, a status page will be printed. Check the **Memory** in the upper right. Information on the SIMM installed in slot is shown here. There is no problem if total memory has increased. (The printer is shipped from the factory with 4096 KB [4 MB] of memory.)

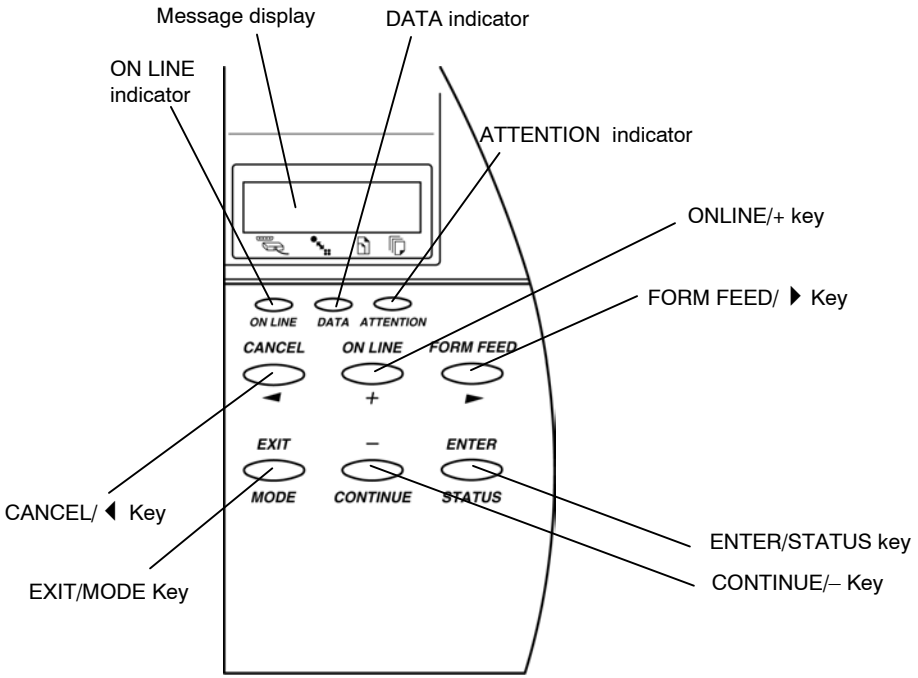
Chapter 2 Operating the Page Printer

This chapter explains the printer's control panel and operating procedures.

Control Panel..... 2- 2
Operating Procedures..... 2- 9
Mode Selection Menu..... 2-20
Paper Cassette Sheet Size Setting..... 2-23
Sleep Timer Setting..... 2-24
Dumping Received Data..... 2-25
KIR Level..... 2-26
Ecoprint Mode..... 2-28
Resource Protection..... 2-29
Manual Paper Feeding..... 2-30

Control Panel

The printer control panel consists of indicators, a message display, and various keys.



Nearly all of the printer modes set using keys on the control panel are automatically recorded within the printer, and are not lost even if power is turned off. The previous operational mode is therefore restored when the printer's power is turned on again.

Message Display

The message display displays the printer's operational mode. Messages which are displayed and their meaning are given in the table below.

Message	Meaning
Self test	The printer is self-testing and warming up after power-up and is not ready to print.
Please wait	The printer is warming up and is not ready to print.
Ready	The printer is ready to print
Processing	The printer is processing print data or in the middle of printing.
Waiting	The last page remains unprinted. The printer waits awhile and eventually generates a form feed allowing the last page to be printed. (The length of time depends on the form feed timeout setting.) The printing will begin immediately when the Form Feed key is pressed.
Sleeping	The printer is in Sleeping mode. The printer wakes from Sleeping mode whenever a key on the control panel is pressed, the cover is opened or closed, or data is received. The printer then warms up and goes online. (The time that it takes the printer to enter Sleeping mode depends on the Sleep Timer setting.)
FormFeed TimeOut	An automatic form feed has been generated.

Interface Indicator

The interface indicator indicates the interface over which data is currently being received or was last received. When an optional interface such as a network interface is installed in the printer, this indicator displays the information in the table below depending on the interface used.

Display	Description
PAR	Parallel interface
SER	Optional serial interface (RS-232C/RS-422A)
OPT	Optional network interface

These indicators will flash while the printer is receiving data and continue flashing until the interface is released even if data transmission is finished. The printer gives priority to data coming in over the interface corresponding to the blinking indicator.

Resolution Indicator

This shows the current printing resolution. Resolution is set to 600 dpi (dot-per-inch), HP LaserJet 5Si emulation, when shipped from the factory. The printer's resolution can be selected using the mode select menu (See the menu hierarchy given at the end of this manual.).

Paper Size Indicator

This is the paper SIZE indicator which indicates:
the sizes of the current paper cassette (letter size for the U.S.A. and A4 for European countries).

The following abbreviations are used to indicate the paper sizes.

Indicator	Paper Size
A4	ISO A4 (21 × 29.7 cm)
A5	ISO A5 (14.8 × 21 cm)
B5	JIS B5 (18.2 × 25.7 cm)
LT	Letter (8-1/2 × 11 inches)
LG	Legal (8-1/2 × 14 inches)

Note

Settings made by application software have priority over settings made from the control panel.

Copy Indicator

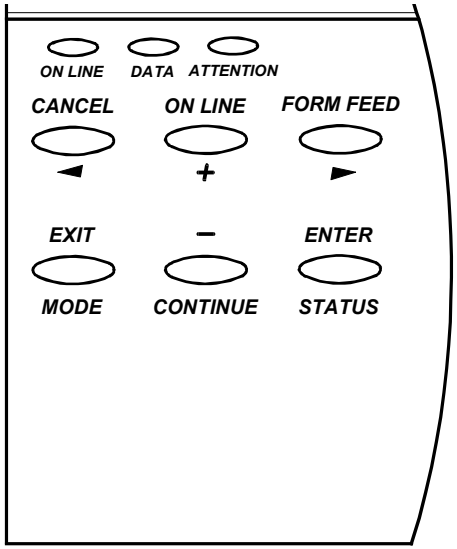
Indicates the number of copies set in the current interface (001 – 999), and the number is reduced as printing proceeds.

Indicator

Refer to the table below for the names and meanings of indicators on the control panel.

Indicators on the Control Panel

Indicator	Name	Description
ON LINE	On-line indicator	Lit: indicates that the printer is on-line. The printer prints received data. Off: The printer is offline. The printer stores but does not print received data.
DATA	Data indicator	Flashing: Indicates data transfer is taking place. Lit: The printer is processing the data for printing.
ATTENTION	Attention indicator	This indicator indicates a problem that may be resolved by the user. Off: Indicates operations are normal. Flashing: Indicates that the printer is warming up or needs maintenance. Check the message display for details and take appropriate action. Lit: This indicates that the printer cannot print due to no paper in the cassette or similar reason. Check the message display for details and take appropriate action.



Control Keys

The functions of each key are given in the table below.

Key	Function
CANCEL/ ◂ key	(1) This key can be used to cancel mode selection or cancel printing during printing. (See page 2-12.) (2) This key functions as the ◂ key during mode selection. It moves upward in the mode select menu and moves the cursor left.
ON LINE/+ key	(1) Pauses and restarts printing. Data can be sent even while printing is paused. (See page 2-12.) (2) This key is used to select menus and change setting values while making settings with the **MODE** key. Holding this key down activates an auto-repeat function causing menus to continuously change.

Key	Function
FORM FEED/ ▸ □ key	(1) This key is used to forcibly print a form feed on the last page when a print timeout occurs. (2) This key functions as the ▸ key during mode selection. It moves downward in the menu hierarchy and moves the cursor right (See page 2-15).
EXIT/**MODE** key	(1) This key interrupts settings when pressed during mode selection. (See page 2-15) (2) This key is used to start and end the next mode selection and make settings. This key is used in relation to the interface, emulation, fonts, character code set, memory card operations and optional hardware, etc. (For details, see the menu hierarchy given at the end of this manual.)
CONTINUE/**–** key	(1) This key forcibly cancels errors and resume printing when printing is halted due to errors such as memory overflow. (2) This key is used to select menus and change setting values while making settings with the **MODE** key. Holding this key down activates an auto-repeat function causing menus to continuously change.
ENTER/ **STATUS** key	(1) This key confirms settings selected during mode selection. (2) This key prints a status page (online). (See page 2-16.)

Notes

- Menus set using these keys are enabled for the interface currently indicated on the message display.
- Settings made from the control panel may be automatically switched to different settings by application software being used.

Operating Procedures

This section explains basic operations of the printer and procedures leading up to and including printing.

Operating Precautions

- Do not turn off power during printing. This may result in a paper jam or damage to the printer.
- Do not open covers on the printer or open the paper feed cassette during printing.
- Do not move the printer during printing.
- Refrain from frequently plugging and unplugging the power plug from the power outlet even when power is turned off.
- Do not plug or unplug the power cord or printer cables while the printer's power is turned on.
- Be sure to carefully attach and detach paper feed cassette and carefully open and close the top cover.
- Be sure to unplug the power cord from the power outlet and take precautions against dust gathering on the printer by draping a cover over it when it is not in use.

Switching Power On

Check that the power cord is securely plugged in at both ends. Check that the printer is connected to the computer (See page 1-21).

1. Push the power switch to the ON (|) position.
2. Wait for the printer to warm up. During warm-up the message display indicates Self test.
3. At the end of the warm-up period, the ON LINE indicator lights, and the message display indicates Ready.

The printer is now ready to print.

Note

If an error is detected while the printer is warming up, the ATTENTION indicator will light. A message concerning the error will be displayed in the message display. (See Chapter 5.)

Basic Printing Operations

The flow of basic operations to print is given below. Keys on the control panel are explained after that. For details on using the **MODE** key, be sure to read the section “Mode Select Menu” at the end of this manual in conjunction with this section.

1. Use the **MODE** key to set an emulation for the printer which conforms to the software being used.

2. This printer is shipped from the factory with emulation set to HP LaserJet 5Si.

3. Use the **MODE** key to select the font to use and paper direction.

4. Use the **MODE** key to select paper feeding from the cassette or the manual feed tray.

5. Use the **MODE** key to set the number of printed copies.

6. Check that the message Ready appears in the message display and that the ON LINE indicator lights, then make preparations to print from the computer.

Press the **FORM FEED** key if, after printing, the message Waiting appears in the message display.

Canceling Printing

Perform the following procedure when you wish to cancel printing after it has begun.

1. Check if the message Processing is displayed in the message display.
2. Press the **ON LINE** key to take the printer offline.
3. Perform the necessary procedure on the computer to halt printing.
4. Press the **CANCEL** key.
5. The message Print Cancel? will appear in the message display and the interface to be canceled will be displayed.
6. The following interfaces may be displayed.

   Parallel
   Serial (only when an optional serial interface (IB-10) is installed)
   Option (only when an optional interface is installed)

7. Selecting the interface to cancel using the + or – key and then press the **ENTER** key. Printing from the interface selected will be stopped.

   A few pages may be printed even after the **CANCEL** key is pressed as remaining data received before the **CANCEL** key was pressed is printed.

   The message Print Cancel? Current job will also be displayed when the **CANCEL** key is pressed for the purpose of stopping the printing of status pages or font lists from the control panel. Pressing the **ENTER** key will cause printing to stop after the printer finished printing the current page.

Press the **CANCEL** key again if you wish to stop the cancellation of printing.

Press the **ON LINE** key to put the printer back online to continue with other print jobs.

Notes

Canceling data from the computer using the **CANCEL** key will restore temporary settings to their default values. (The same status resulting from executing the PRESCRIBE IIe RES command.)

Switching Online/Offline

After printing starts, it is possible to interrupt printing to check whether the print job is coming out as anticipated.

Pressing the **ON LINE** key during data processing will cause the ON LINE indicator to go out and pressing it during printing will cause the printer to stop after the page currently being printed is finished.

The printer continues to receive data even while the printer is offline while the message Processing is displayed.

Press the **ON LINE** key to bring the printer online again. The printer will come online and the ON LINE indicator will light.

Read the section above on how to cancel printing.

Form Feed

Depending on the software, the message Waiting may be displayed in the message display when you get to the end of a print job. This occurs when the software does not issue a final form feed to the printer indicating the end of the print data. If you wait awhile, FormFeed TimeOut will be displayed and the last page will be printed automatically. Pressing the **FORM FEED** key allows you to finish printing immediately.

1. Check if the message display reads Waiting.

2. Press the **FORM FEED** key. The message display will now read Processing and the last page will print.

Note

The Waiting display may also appear due to interruptions in printed data while the computer is processing data. Pressing the **FORM FEED** key unnecessarily when the message display reads Waiting will result in a form feed.

Mode Selection

The **MODE** key is used when making various mode settings and selections. For details, see the section **Mode Selection Menu** beginning on the page 20.

Continue

Press the **CONTINUE** key when the specific error messages are displayed and "Press Continue" will be displayed together. For these error messages, see Chapter 5.

Status Printout

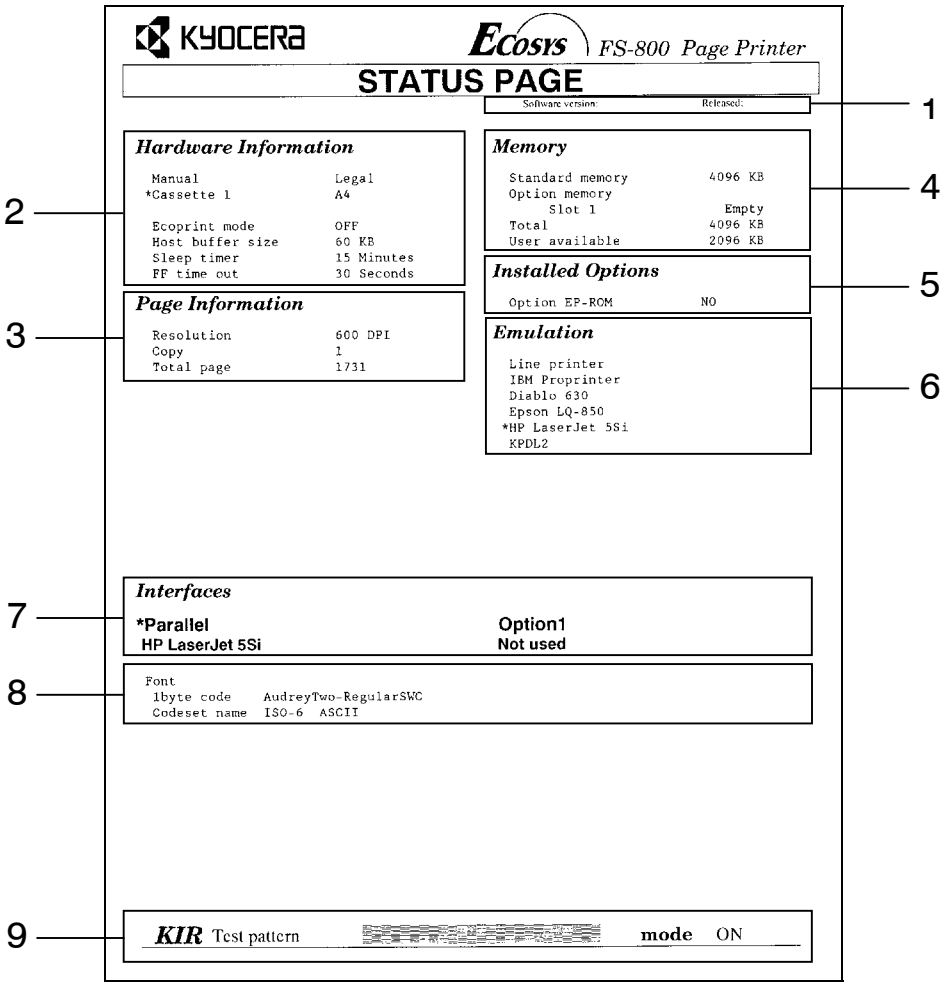
It is possible to print out and check the printer's current status including unit emulation, font, printing range, and memory usage.

1. Check that the ON LINE indicator lit and that the message Ready is displayed in the message display.

2. Press the **STATUS** key. The message display will read Processing, and a status page will be printed. After it is finished printing, the message display will return to Ready.

An example of a printed status page is shown on the next page. Note that information on an actual status page may differ slightly from this example.

Sample Status Page



1 — Software version

This information shows the software version and date of issue of the printer.

2 — Hardware information

This information shows the currently selected paper feed source (indicated by an asterisk), paper size, and main settings of the printer.

3 — Page information

This information shows the currently selected resolution and number of copies.

4 — Memory

This information shows the amount of total memory installed in the printer and the amount of currently available memory.

5 — Installed Options

This shows the options currently installed in the printer.

6 — Emulation

This shows all available emulations and the currently selected emulation (marked with an asterisk). The printer is shipped from the factory set to HP LaserJet 5Si emulation.

7 — Interface information

This information shows all interfaces installed in the printer and the currently selected interface.

8 — Fonts at startup (for each interface)

This shows the font automatically selected when the printer starts up (default font). It is possible to set different fonts for the parallel interface and the serial interface. The figure on page 2-17 shows default settings. The font is set to "1" (Courier bitmap font).

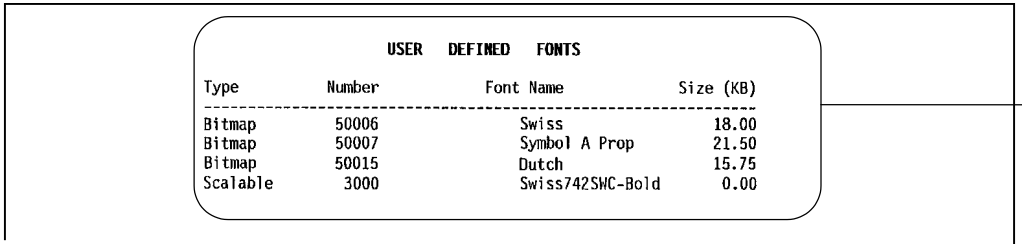
This also shows font information similar to the column below if an optional interface is installed.

9 — KIR test pattern

This is used when setting the printer's KIR mode. For details, see page 2-26.

10 — User font list

Following the status page, font listings are output which show the fonts which have been downloaded to the printer from the computer.


USER DEFINED FONTS
Type Number Font Name Size (KB)
Bitmap 50006 Swiss 18.00
Bitmap 50007 Symbol A Prop 21.50
Bitmap 50015 Dutch 15.75
Scalable 3000 Swiss742SWC-Bold 0.00
10

Mode Selection Menu

This section explains the menu hierarchy used for all menus which can be set and selected using the **MODE** key. The **MODE** key can be used to display all of the menus in the table below. This mode selection menu conforms to the menu hierarchy given at the end of this manual.

Pressing the **MODE** key initially displays menus at the top of the hierarchy.

Use the + and – keys to move between menus in the same level. The + key shows the next menu, while the – key shows the previous one. Change levels by using the ◂ and ▸ keys. The ▸ key moves to lower levels (sub-menus), while the ◂ key moves to higher levels.

Mode Selection Menu List

Menu		Description	Default Setting
Interface	>	Selects the interface for which settings are to be made. Settings from the mode select menu are applied to the interface selected here.	Parallel
		• Depending on the computer connected, you can select from any of Nibble (high), Auto, Normal, High speed.	Nibble (high)
		• The following settings can be made for the optional serial interface (IB-10).	
		Baud rate	9600
		Data bit	8
		Stop bit	1
		Parity	None
		Protocol	DTR (pos.) & XON

(Continued on next page)

Menu		Description	Default Setting
Number of copies		Set the number of copies to be printed. This can be set up to 999.	001
Emulation	>	Switches the printer emulation. The ▸ key allows access to sub item >Code set.	HP LaserJet 5Si
Font	>	Selects the print font.	bitmap
Page orientation		Print direction settings	Portrait
Opt. ROM	>(*)	Reads information from the option ROM installed in the printer's main board.	—
Feed select	>	Selects the cassette feed, manual feed or the PF-16 paper feeder, if installed.	Cassette
		When the cassette feed is selected, the sub-menu > Paper size can be displayed by pressing the ▸ key and selects the paper size for the cassette.	A4 or Letter
Paper Type		This can be changed depending on the thickness of the paper to be printed on. Thin: 60 to 70 g/m^2 Normal: 70 to 90 g/m^2 To prevent paper jams, be sure to feed thick paper from the manual feed tray and output on the face-up tray. For details on paper which can be used, see **Appendix B**.	Normal
Auto cassette (*)		Selects one of the automatic paper cassette switching modes. Only available when the printer is installed with the optional paper feeder (PF-16).	None

(Continued on next page)

(*): These items are available only when the printer is installed with the applicable option unit/kit.

Menu		Description	Default Setting
Others	>	The following sub-menus can be displayed by pressing the ▸ key and then the + or – key.	
		Message language setting	English
		Automatic form feed timeout setting	30 sec.
		Sleep timer setting [See page 2-24.]	15 min.
		Receive data dumping [See page 2-25.]	–
		List of resident fonts setting	–
		Printer reset	–
		Line feed setting [See page 2-15.]	LF only
		Carriage return setting	CR only
		Display total number of printed pages	–
		KIR mode setting [See page 2-26.]	On
		Ecoprint Mode setting [See page 2-28.]	Off
		Page protection mode	Auto
		Resolution setting	600
		Resource protection	Off
		Service (for service personnel)	–

Main items within these menus are explained beginning on the next page. For details on other menus, see the **Mode Select Menu** diagram at the end of this manual.

Paper Cassette Sheet Size Setting

A5, B5, A4, letter, and legal size sheets can be loaded into the paper cassette for this printer by adjusting the position of the sheet guide and paper stopper. The factory setting is either A4 or letter size.

This printer does not automatically detect the size of the sheets loaded into the paper cassette. As a result, whenever you load paper having a different size, you must reset the sheet size setting at the control panel. An example of the setting procedure is shown below. For more details, see the section on **Mode Select Menu** at the end of this manual.

1. Load the paper into the paper cassette.

2. Press the **MODE** key, and select Feed select > from the mode menu. Select Cassette as the paper feed source, and then press the **ENTER** key to make the settings.

3. Next, press the > key so that >Paper size is displayed. Use the + and - keys to display the desired sheet size, and then press the **ENTER** key to make the settings.

4. Press the **EXIT** key to return to Ready. The selected sheet size is then displayed on the message display ( ).

Sleep Timer Setting

This printer is equipped with a sleep timer function for conserving energy in cases where there has been no operation from the control panel or data has not been received for a predetermined period of time.

The sleep timer can be set anywhere from 0 to 120 minutes in 5-minute increments. Setting the sleep timer to 0 turns it off. The sleep timer is set at the factory to 15 minutes.

Once the set time arrives, the printer will display Sleeping and all indicators will go out. This minimizes the amount of energy used.

Pressing a key on the control panel, opening and closing a cover, or sending data to the printer while it is displaying Sleeping will cause the printer to display Please wait and it will begin warming up. After it warms up, the printer's **ON LINE** indicator will light and it will enter ready status.

Note

The printer environment last set is still maintained even though all indicators are out while the printer is in Sleeping mode.

Dumping Received Data

It is possible to print data received by the printer as hexadecimal code for the purposes of debugging programs and files.

1. Pressing the **ENTER** key once while >Print HEX-DUMP is shown on the message display will cause a ? to display.

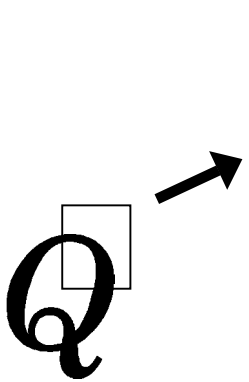
2. Pressing the **ENTER** key once again, Processing will be shown for a second then the message Waiting will appear on the message display.

3. Send data to be dumped to the printer. The message Processing will be displayed during receiving the data. Once the dumped data you require has been output, it is possible to cancel the printing of any further dumped data by taking the printer offline by pressing the **ON LINE** key and then pressing the **CANCEL** key.

4. Once all data has been received, the message Waiting will appear. Press the **FORM FEED** key to finish printing.

KIR Level

This printer incorporates the KIR (Kyocera Image Refinement) smoothing function. KIR provides high quality printing by providing a software-type improvement to the resolution.

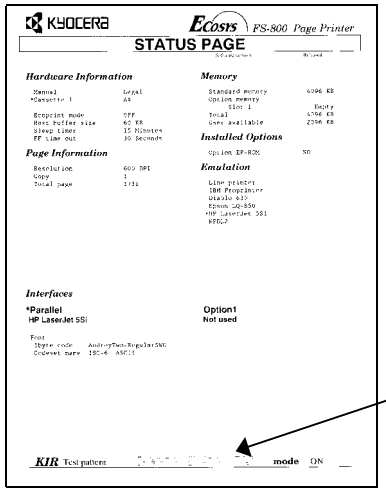


The KIR setting is OFF.

The KIR setting is ON (Default setting).

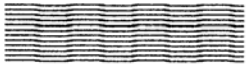
Note

You can look at the check line, the last line on a status page, to make the optimum KIR mode setting. Please refer to the table on the next page.



Status page

KIR Checking Lines

KIR Setting	Description
Optimized stripes	The current KIR setting is optimal.
Dark vertical stripes 	The KIR mode currently set is too strong. Set the KIR mode to off. (See the Mode Select Menu at the end of this manual.)
White vertical stripes	The KIR mode currently set is too weak. Set the KIR mode to on. (See the Mode Select Menu at the end of this manual.)

Ecoprint Mode

The Ecoprint enables you to reduce the amount of toner consumed on the page so as to save your printing costs. The factory-setting is off.

Ecoprint is Off (default)

Ecoprint is On

Notes

The Ecoprint setting has no effect on the print speed.

Resource Protection

When you switch from the HP LaserJet 5Si emulation to another, all downloaded fonts and macros are lost. Resource protection preserves these PCL resources in memory so that they are intact when you change the emulation back to HP LaserJet 5Si.

By using the printer's >Resource prot., you can select from two resource protection modes as follows:

>Resource prot.
Permanent

In this mode, the printer stores fonts, macros, symbol sets, etc. in memory that were downloaded as permanent PCL resources. All temporary resources are lost when the emulation mode is changed from HP LaserJet 5Si to another or vice versa.

>Resource prot.
Perm / Temp

In this mode, the printer stores both permanent and temporary resources when the emulation mode is changed from HP LaserJet 5Si to another or vice versa.

Note

The printer requires 10 MB or more of memory in order to set resource protection.

Manual Paper Feeding

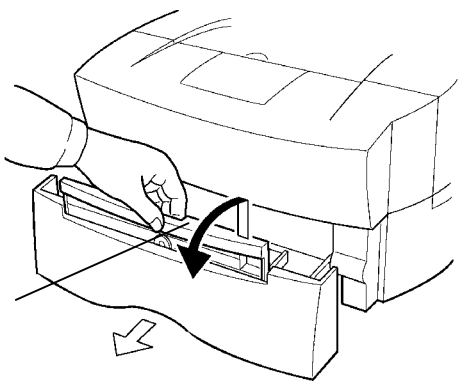
Manual paper feeding enables you to print on special paper without having to reload the paper feed cassette. **Appendix B** lists the usable types of paper.

By default, the printer feeds one sheet of paper at a time from the manual tray even if the current paper feed source is the cassette or the optional paper feeder (PF-16). This automatic manual feature is useful when you want the first page of a letter printed on a letterhead paper and remaining pages on the normal paper from the paper cassette.

Note

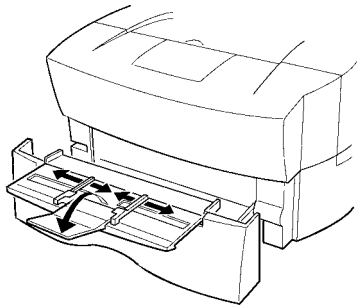
Since the printer does not sense the position of the manual feed paper guides, the printer assumes that all manually fed paper uses the legal size (8-1/2 × 14 inches).

1. Pull the paper cassette part-way open and lift the manual feed tray out of its compartment.



Manual feed tray

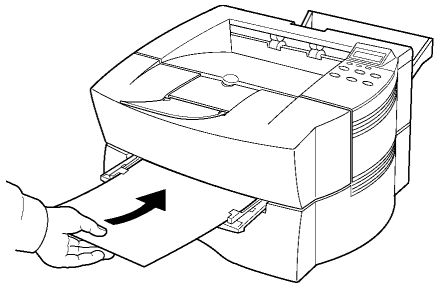
2. Fold the sub-tray outward, then adjust the paper guides to the size of the manually fed paper.



3. Insert a sheet of paper as far as it will go.

Note

To print more than two pages continuously using the manual feed tray, confirm that the message Add paper is shown on the message display before setting the paper on the feed tray. Setting the paper before Add paper is displayed causes paper jam.



4. Send printing commands and data from the computer. The DATA indicator begins flashing. When the data has processed (the DATA indicator stays lit). Paper is fed from the manual feed tray and the message Processing is displayed in the message display.

Note

Following the manually fed paper in the above, the printer automatically feeds the next sheet from the paper cassette (or the PF-16 paper feeder). To feed paper from the manual feed tray one sheet after another, to return to the automatic manual feed mode, select Cassette from the Feed select menu.

Feeding Envelopes

Envelopes should be fed in the face up, right edge first.

Note

To avoid trouble, we recommend that envelopes are delivered face-up using the face-up tray.

Not all envelopes print well. See **Appendix B** for details on suitable types of envelopes.

Overhead Projection (OHP) Film

To avoid feed problems, OHP film must be fed manually in the manner described above.

Requirements regarding OHP film are also given in **Appendix B**.

Note

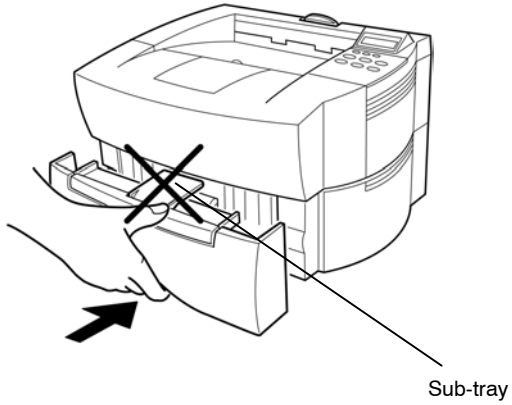
OHP film must be delivered face-up.

Returning the Manual Feed Tray

Return the manual feed tray to its original position by reversing steps 1 to 2 (pages 2-30 and 2-31).

Note

Be careful not to push the tray back into the printer with the sub-tray folded out horizontally as shown in the figure.



Chapter 3 Fonts

This chapter describes the types of fonts you can use with the printer, including the printer's fonts and symbol sets.

Fonts 3-2
List of Fonts.....3-3
Symbol Set.....3-8

Fonts

A font is a set of characters of a particular design. The design is referred to as a typeface. Several characteristics identify a font. These include the font type (bit map or scalable), symbol set, spacing, pitch, height, style, stroke weight, and typeface family.

The printer provides two types of fonts: bitmap fonts and scalable (outline) fonts. Also, fonts may be downloaded to the printer's memory. These fonts are referred to as downloadable or soft fonts. The printer accepts as many downloadable fonts as its user available memory permits.

Scalable fonts provide the outline of the characters. This outline is scaled according to the scaling information from the computer and filled in for printing. Depending on the capabilities of the software you use, the scalable fonts can be scaled from 0.25 point to 999.75 points in quarter point increments.

List of Fonts

This section contains a full list of the printer's resident scalable fonts.

Bitmap Fonts

The printer has 80 bitmap fonts. Note that all bitmap fonts include the letters BM in the typeface name.

Scalable Fonts

The printer has 45 resident scalable fonts. These fonts include the letters SWC or SWM in the typeface name and are equivalent to HP LaserJet 5Si fonts.

KPDL Fonts

The printer has 35 KPDL (kyocera Page Description Language: Kyocera's version of PostScript), KPDL fonts are Adobe PostScript Type 1-compatible, and have the suffix SWA at the end of the font name.

Resident Scalable Fonts (1)

This is a sample of Audrey Two-RegularSWC font.
This is a sample of Clarendon-CondensedSWC font.
This is a sample of Courier-BoldItalicSWC font.
This is a sample of Courier-BoldSWC font.
This is a sample of Courier-ItalicSWC font.
This is a sample of Courier-SWC font.
This is a sample of Dutch801-BoldItalicSWM font.
This is a sample of Dutch801-BoldSWM font.
This is a sample of Dutch801-ItalicSWM font.
This is a sample of Dutch801-RomanSWM font.
This is a sample of Dutch801SWC-Bold font.
This is a sample of Dutch801SWC-BoldItalic font.
This is a sample of Dutch801SWC-Italic font.
This is a sample of Dutch801SWC-Roman font.
This is a sample of Flareserif821-ExtraBoldSWC font.
This is a sample of Flareserif821-RomanSWC font.
This is a sample of Incised901SWC-Black font.
This is a sample of Incised901SWC-Italic font.
This is a sample of Incised901SWC-Roman font.
This is a sample of LetterGothic-BoldSWC font.
This is a sample of LetterGothic-ItalicSWC font.
This is a sample of LetterGothic-SWC font.
(This is a sample of MoreWingbats-RegularSWM font.)
This is a sample of OriginalGaramondSWC-Bold font.
This is a sample of OriginalGaramondSWC-BoldItalic font.
This is a sample of OriginalGaramondSWC-Italic font.
This is a sample of OriginalGaramondSWC-Roman font.

Resident Scalable Fonts (2)

This is a sample of Ribbon131-Roman_SWC font.
This is a sample of Swiss721-BoldObliqueSWM font.
This is a sample of Swiss721-BoldSWM font.
This is a sample of Swiss721-ObliqueSWM font.
This is a sample of Swiss721-SWM font.
This is a sample of Swiss742SWC-Bold font.
This is a sample of Swiss742SWC-BoldCondensed font.
This is a sample of Swiss742SWC-BoldCondensedItalic font.
This is a sample of Swiss742SWC-BoldItalic font.
This is a sample of Swiss742SWC-Italic font.
This is a sample of Swiss742SWC-ItalicCondensed font.
This is a sample of Swiss742SWC-Roman font.
This is a sample of Swiss742SWC-RomanCondensed font.
Τηισ ισ α σαμπλε οφ Σψμβολ–Σετ–ΣΩΜ φοντ.
(This is a sample of Symbol-Set-SWM font.)
This is a sample of ZapfHumanist601SWC-Bold font.
This is a sample of ZapfHumanist601SWC-BoldItalic font.
This is a sample of ZapfHumanist601SWC-Demi font.
This is a sample of ZapfHumanist601SWC-DemiItalic font.

KPDL Fonts (1)

This is a sample of Century-Schoolbook-SWA font.
This is a sample of Century-Schoolbook-ItalicSWA font.
This is a sample of Century-Schoolbook-BoldSWA font.
This is a sample of Century-Schoolbook-BoldItSWA font.
This is a sample of Courier-SWA font.
This is a sample of Courier-ItalicSWA font.
This is a sample of Courier-BoldSWA font.
This is a sample of Courier-BoldItalicSWA font.
This is a sample of Dutch801-RomanSWA font.
This is a sample of Dutch801-ItalicSWA font.
This is a sample of Dutch801-BoldSWA font.
This is a sample of Dutch801-BoldItalicSWA font.
This is a sample of ITC-Bookman-LightSWA font.
This is a sample of ITC-Bookman-LightItalicsSWA font.
This is a sample of ITC-Bookman-DemiSWA font.
This is a sample of ITC-Bookman-DemiItalicSWA font.
This is a sample of ITC-Avant-Garde-BookSWA font.
This is a sample of ITC-Avant-Garde-BookObliqueSWA font.
This is a sample of ITC-Avant-Garde-DemiSWA font.
This is a sample of ITC-Avant-Garde-DemiObliqueSWA font.
This is a sample of ITC-Zapf-Chancery-MediumItSWA font.

(This is a sample of ITC-Zapf-Dingbats-SWA font.)

KPDL Fonts (2)

This is a sample of Swiss721-SWA font.
This is a sample of Swiss721-ObliqueSWA font.
This is a sample of Swiss721-BoldSWA font.
This is a sample of Swiss721-BoldObliqueSWA font.
This is a sample of Swiss721-NarrowSWA font.
This is a sample of Swiss721-NarrowObliqueSWA font.
This is a sample of Swiss721-NarrowBoldSWA font.
This is a sample of Swiss721-NarrowBoldObliqueSWA font.
Τηισ ισ α σαμπλε οφ Σψμβολ–Σετ–ΣΩΑ φοντ.
(This is a sample of Symbol-Set-SWA font.)
This is a sample of Zapf-Calligraphic801-SWA font.
This is a sample of Zapf-Calligraphic801-ItalicSWA font.
This is a sample of Zapf-Calligraphic801-BoldSWA font.
This is a sample of Zapf-Calligraphic801-BoldItSWA font.

Symbol Set

A *symbol* set is the set of alphabetical and numerical characters and symbols the printer prints. Each character is assigned to a particular character code.

The page printer offers not only a large selection of bitmap and scalable fonts but also a large selection of symbol sets (also referred to as *character sets*). This is because the printers the Kyocera page printer emulates have a number of their own symbol sets for printing in different languages and other purposes. Most of those symbol sets are the same regarding the letters of the alphabet, digits, and basic punctuation marks, but they differ considerably in their special symbols which lie in the upper half of the character code table, consisting of character codes 128 through 254 (hex 80 through FE).

The symbol set selection can also be made from the printer's control panel. See *Mode Select Menu* on the last page in this manual.

Table 3.1. Bitmap Fonts Symbol sets

SSET value	SSET ID	Symbol set
4	0D	ISO 60: Norway
9	0I	ISO 15: Italian
14	0N	ECMA-94 Latin 1
19	0S	ISO 11: Swedish
21	0U	ISO 6: ASCII
37	1E	ISO 4: U.K.
38	1F	ISO 69: France
39	1G	ISO 21: Germany
53	1U	US Legal
83	2S	ISO 17: Spain
277	8U	HP Roman-8
341	10U	PC-8
373	11U	PC-8 (D/N)
405	12U	PC-850

Table 3.2. Scalable Fonts Symbol sets

SSET value	SSET ID	Symbol set
4	0D	ISO 60: Norway
9	0I	ISO 15: Italian
14	0N	ECMA-94 Latin 1
19	0S	ISO 11: Swedish
21	0U	ISO 6: ASCII
37	1E	ISO 4: U.K.
38	1F	ISO 69: France
39	1G	ISO 21: Germany
53	1U	US Legal
78	2N	ISO: Latin 2
83	2S	ISO 17: Spain
173	5M	PS math *
174	5N	ISO: Latin 5
180	5T	Windows Latin 5
202	6J	MS publishing *
205	6M	Ventura math *
234	7J	Desktop
269	8M	Math 8 *
277	8U	HP Roman-8
293	9E	Windows Latin 2
308	9T	PC-Turkish
309	9U	Windows 3.0
330	10J	PS text

(Continued on next page)

SSET value	SSET ID	Symbol set
341	10U	IBM PC-8
373	11U	IBM PC-8 (D/N)
394	12J	Macintosh
405	12U	IBM PC-850
426	13J	Ventura international
458	14J	Ventura US
501	15U	Pi font *
565	17U	PC852
629	19U	Windows Latin 1

* : These symbol sets are available only for the fonts appearing on the following page.

AudreyTwo-RegularSWC
Clarendon-CondensedSWC
Courier-BoldItalicSWC
Courier-BoldISWC
Courier-ItalicSWC
Courier-SWC
Dutch801SWC-Bold
Dutch801SWC-BoldItalic
Dutch801SWC-Italic
Dutch801SWC-Roman
Flareserif821-ExtraBoldSWC
Flareserif821-RomanSWC
Incised901SWC-Black
Incised901SWC-Italic
Incised901SWC-Roman
LetterGothic-BoldSWC
LetterGothic-ItalicSWC
LetterGothic-SWC
OriginalGalamondSWC-Bold
OriginalGalamondSWC-BoldItalic
OriginalGalamondSWC-Italic
OriginalGalamondSWC-Roman
Ribbon131-RomanSWC
Swiss742SWC-Bold
Swiss742SWC-BoldCondensed
Swiss742SWC-BoldCondensedItalic
Swiss742SWC-BoldItalic
Swiss742SWC-Italic
Swiss742SWC-ItalicCondensed
Swiss742SWC-Roman
Swiss742SWC-RomanCondensed
ZapfHumanist601SWC-Bold
ZapfHumanist601SWC-BoldItalic
ZapfHumanist601SWC-Demi
ZapfHumanist601SWC-DemiItalic

Chapter 4
Maintenance

This chapter explains how to maintenance the printer. This only covers replacing the toner container and cleaning parts such as registration roller and laser scannaer glass.

Toner Container Replacement 4-2
Cleaning 4-9

Toner Container Replacement

When there is not enough toner, the printer displays the message Toner Low TK-16 in the message display. Be sure to prepare a new toner container when this message appears. If printing is continued in this condition, the printer will display the message Replace Toner and stop when there is no more toner.

In this case, printing can be continued by replacing with a new toner kit.

Toner Container Replacement Interval

Assuming an average toner coverage of 5% with Ecoprint mode turned off, the toner container will need replacing approximately once every 3,600 printed pages (3,000 pages with TK-16).

Toner Kit to be Used

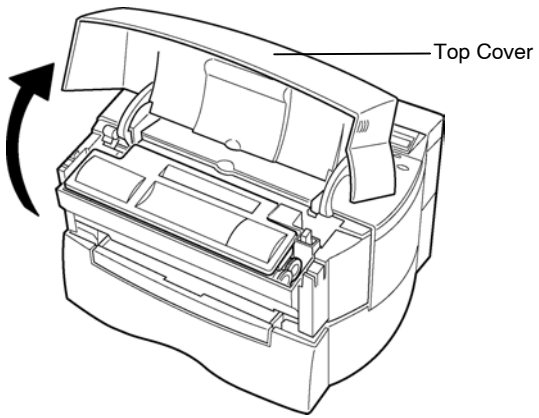
Name: TK-16/TK-16H(The toner kit included with the printer is the TK-16H.)
Description: Toner Container
Cleaning Cloth
Cap For Old Toner Container
Plastic Waste Bag (The toner kit supplied with the printer does not contain a plastic waste bag.)
Instruction Manual

Notes

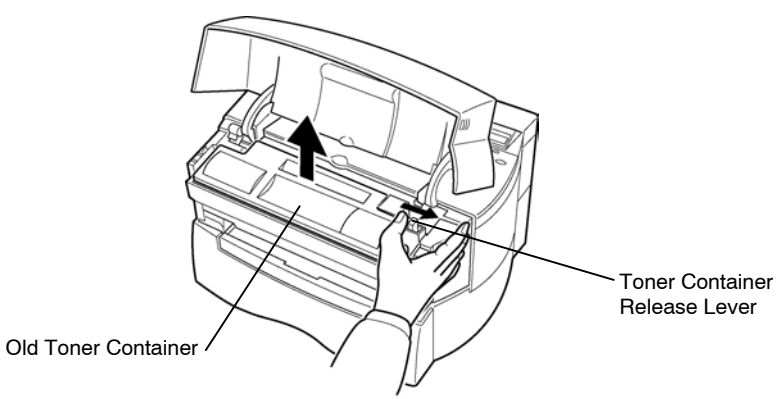
- Do not use the toner inside the old toner container.
- Be sure to distance items such as floppy disks during toner container replacement.
- Be sure to clean the inside of the printer along with replacing the toner container. For details, see **“Cleaning”** on page 4-9.
- Use of original Kyocera toner kits is highly recommended to prevent printer trouble and ensure the long life of the printer.

Replenishing Toner

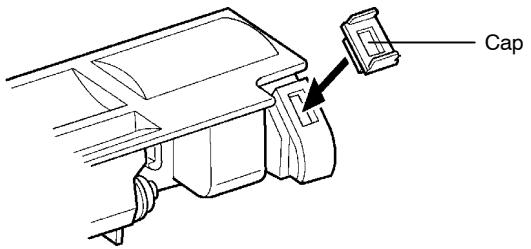
1. Open the top cover.



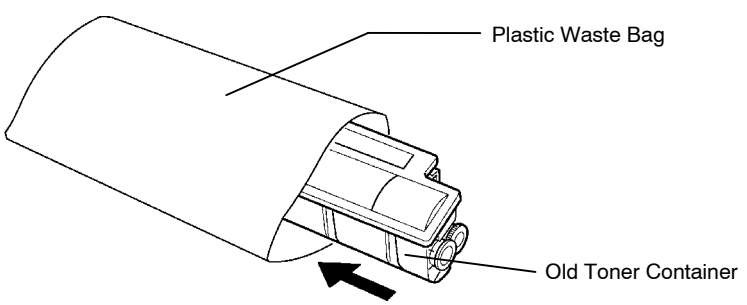
2. Slide the toner container release lever to the right to release the old toner container from the printer. After removing it, take care not to tilt the toner container.



3. Use the cap provided in this toner kit to cover the removed toner container as shown in the diagram below. This is to prevent the waste toner from spilling.



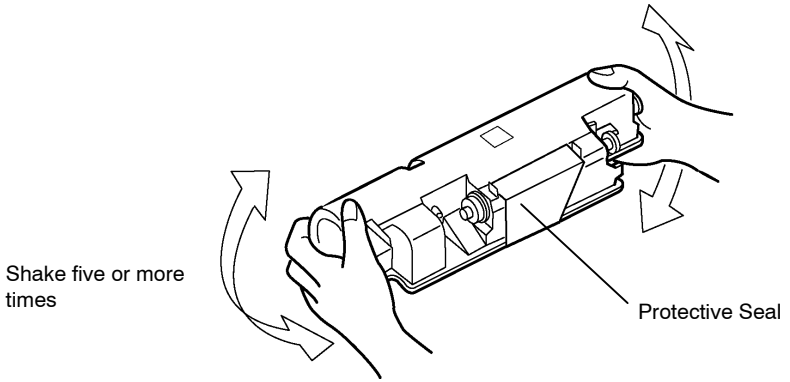
4. Dispose of the old toner container in the plastic waste bag supplied in the new toner kit so that toner does not scatter.



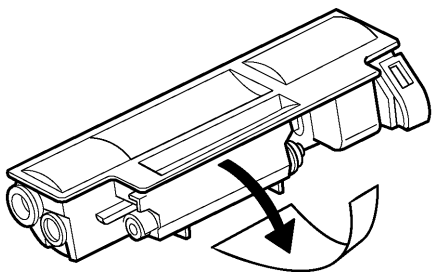
Note

Although the toner container is made from non-harmful, flammable material, be sure to dispose of this waste according to local laws and regulations.

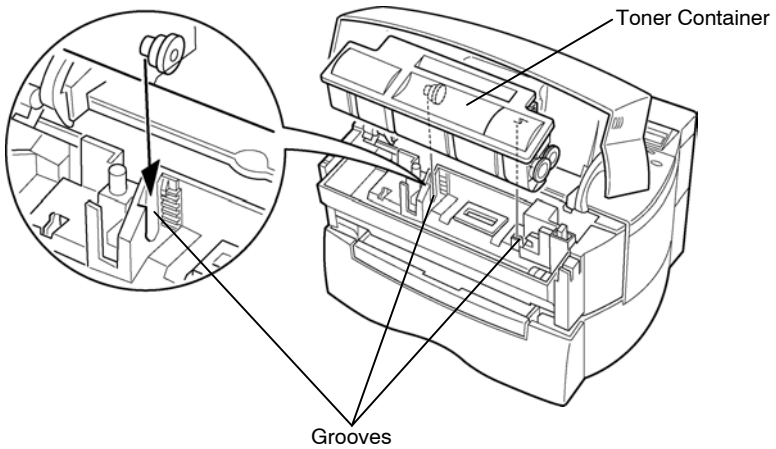
5. Take the new toner container from the toner kit. Shake the toner container with the protective seal (orange-colored) facing up as shown in the figure five times or more to thoroughly mix the toner inside.



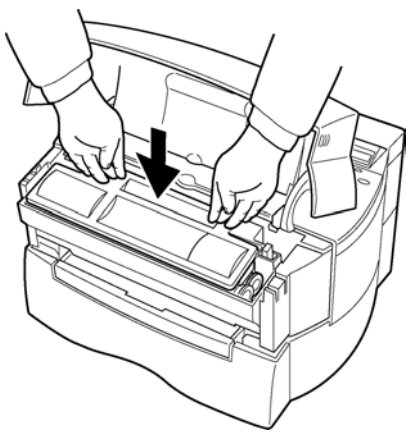
6. Carefully remove the protective seal.



7. Align the ends of the toner container with the grooves to the left and right inside the printer and install.



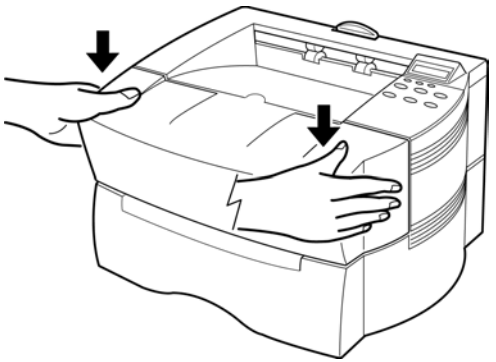
8. Check that the toner container is installed in the correct position, and push forcefully on the top of the toner container “PUSH HERE.”



Note

Make sure that the toner container is properly locked into the printer.

9. Close the top cover.



Cleaning

To avoid print quality problems, the interior of the printer must be cleaned with every toner container replacement.

Note

Cleaning should be done from time to time to avoid print quality problems.

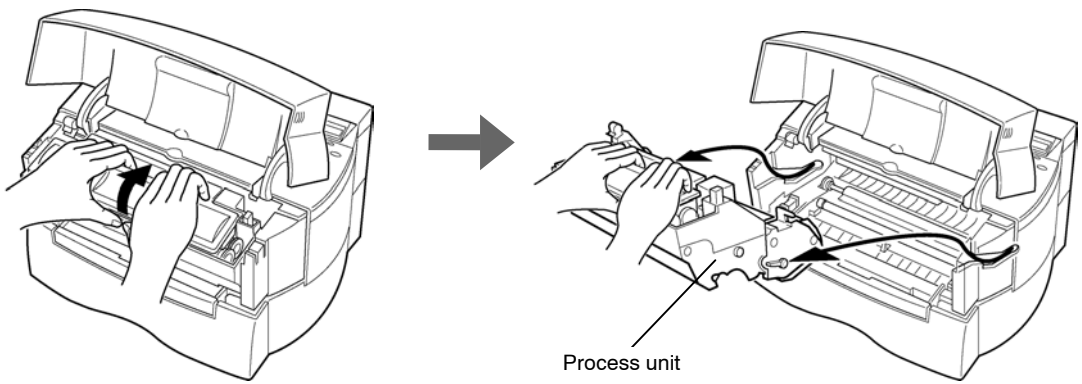
Printer Interior

Note

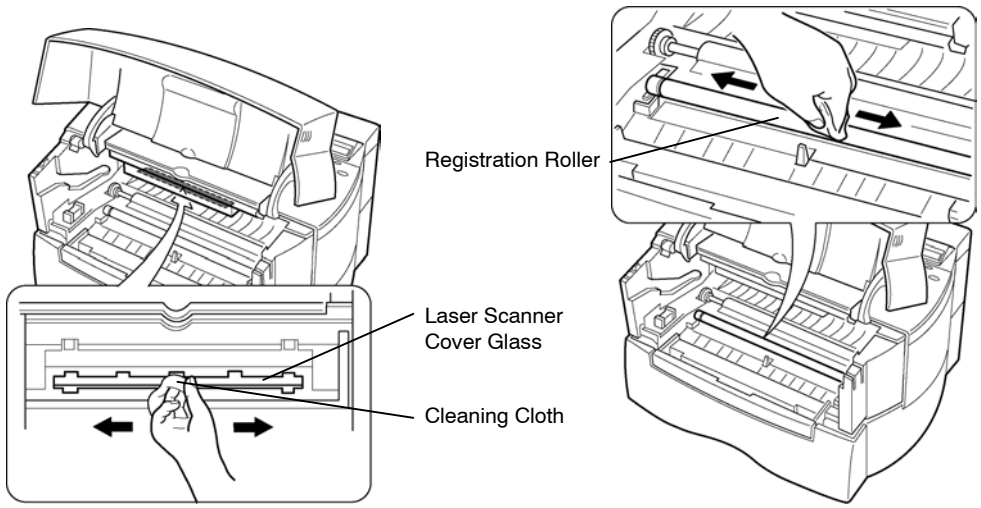
Before cleaning the interior of the printer, switch off the printer power.

To avoid print quality problems due to paper dust and debris, clean the interior of the printer in the following manner.

1. Lift the process unit out of the printer. **The drum in the process unit is sensitive to light. Do not expose the drum even to normal office lighting (500lux) for more than five minutes.**



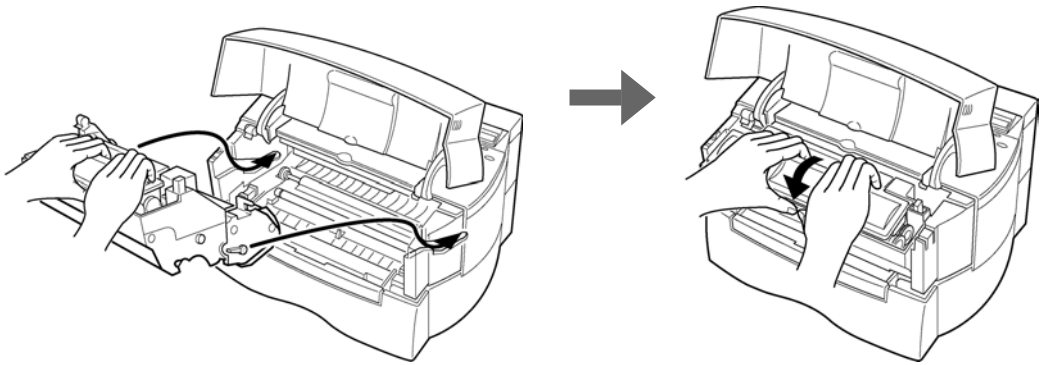
2. Use the cleaning cloth provided together with this kit to clean dust and dirt away from the registration roller and laser scanner cover glass.



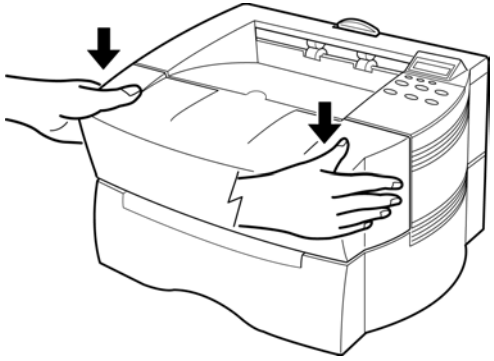
Note

While cleaning, be careful to avoid touching the transfer roller (the black roller) and laser scanner cover glass.

3. After cleaning is done, install the process unit in the printer. In doing so, carefully align the guides at the both ends of the process unit properly with the slots in the printer.



4. Close the printer's top cover by pressing down on the front left and right corners of the top cover.



Chapter 5 Troubleshooting

This chapter explains how to handle printer problems which may occur. If a problem cannot be corrected, please contact your Kyocera dealer.

General Guide 5-2
Print Quality Problems 5-4
Indicators and Messages 5-8
Correcting a Paper Jam 5-12

General Guide

There are quite a few printer problems which may be corrected by the user. This section explains how to correct these problems.

If some kind of printer problem should occur, check the following before concluding the printer is broken.

Symptom	Check Items		Corrective Action
The printer will not print.	Check the ON LINE indicator.	Off	Press the **ON LINE**/+ key. If the indicator remains off and the printer still will not print even after pressing the **ON LINE**/+ key, the problem may be power-related. Look through the items below and check anything that seems appropriate.
		Lit	See the appropriate item below.
	Check the print quality of a status page if one can be printed.	No problem	There may be a problem in the connection with the computer. Look through the items below and check anything that seems appropriate.
		There is a problem	See the section on **Print Quality Problems** (See page 5-4).
The **ATTENTION** indicator is lit.			See the section on **Indicators and Messages** (See page 5-8).
A maintenance message appears in the message display.			See the section on **Indicators and Messages** (See page 5-8).
Paper is jammed.			See the section on **Correcting a Paper Jam.**

(Continued on next page)

Symptom	Check Items	Corrective Action
Nothing lights on the control panel and no message is displayed even when power is turned on and the fan makes no noise.	Check that the power cord is properly plugged into the power outlet.	Turn off the printer's power, plug in the power cord securely, and try turning on the printer's power again.
	Check that the power switch is really in the on position.	
The printer prints a status page, but data from the computer is not being printed normally.	Check the interface cable.	Connect both ends of the interface cable securely. Try replacing the printer cable. For details on the parallel interface of this printer, see **Appendix C**.
	Check program files and application software.	Try printing another file or using another print command. If the problem occurs only with a specific file or application, check the printer settings for that application.

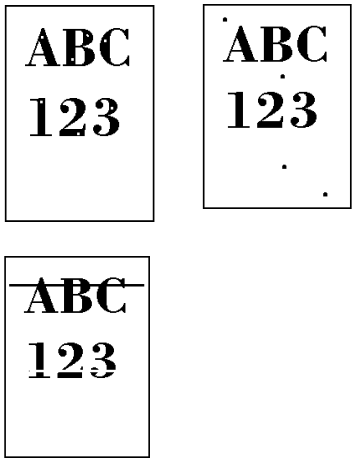
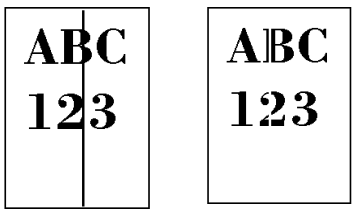
If you still cannot correct a printer problem even after checking the above, please contact your Kyocera dealer.

Print Quality Problems

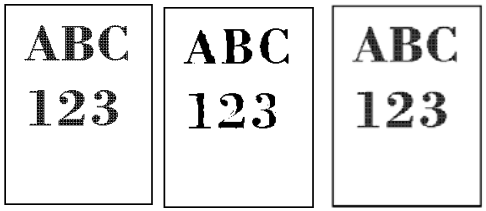
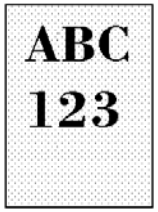
There are many possible causes of the print quality problems, such as blank output, shown in the table below. The troubleshooting procedure for each type of problem is given below. If the checks explained in this section do not solve the problem, please contact your Kyocera dealer.

Printed Results	Corrective Action
All-black printout	Please contact your Kyocera dealer.

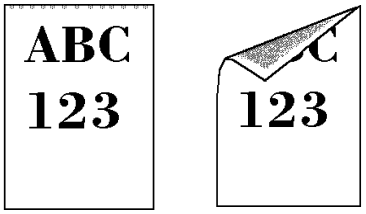
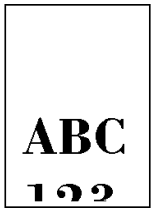
(Continued on next page)

Printed Results	Corrective Action
Dropouts, horizontal streaks, stray dots 	Clean the laser scanner cover glass. Open the printer's top cover. Clean the laser scanner cover glass using the wiper cloth. (See **Chapter 4**.)
Black or white vertical streaks 	Clean the laser scanner cover glass. Open the printer's top cover. Clean the laser scanner cover glass using the wiper cloth. (See **Chapter 4**.)

(Continued on next page)

Printed Results	Corrective Action
The image is smeared. 	Clean the laser scanner cover glass. Open the printer's top cover. Clean the laser scanner cover glass using the wiper cloth. (See **Chapter 4**.)
	Try setting the thin paper mode. Select `Thin` from `Paper Type` menu. (See **Chapter 2**.)
Faint or blurred printing  	Check the Ecoprint setting. (See **Chapter 2**.)
	If the `Toner low TK-16` message is displayed, install a new toner kit. (See **Chapter 4**.)
	Clean the laser scanner cover glass. Open the printer's top cover. Clean the laser scanner cover glass using the wiper cloth. (See **Chapter 4**.)
	Try setting the thin paper mode. Select `Thin` from `Paper Type` menu. (See **Chapter 2**.)
Grey background.  	Check the process unit. Open the printer's top cover and check that the process unit is properly installed.

(Continued on next page)

Printed Results	Corrective Action
Dirt on the top edge or back of the paper 	Check the transfer roller. Lift the process unit out of the printer and check whether the transfer roller is dirty. If so, print several pages to eliminate the dirt.
	Check the registration roller. Lift the process unit out of the printer and check whether the registration roller is soiled with toner. If so, wipe it clean using the supplied cleaning cloth.
Characters out of position. 	Check the file or program. See if the problem is caused by an error with PRESCRIBE IIe commands. If the problem occurs only with a specific file or program, the most likely cause is an error in a parameter to a command or command syntax.

Indicators and Messages

This section explains the indicators on the control panel and the messages which appear in the message display and the appropriate corrective action to take in each case.

Indicator

Indicator	Condition	Corrective Action
ATTENTION	Flashing	The printer is warming up (`Please wait`) or the printer has insufficient memory available. Confirm the message indicated on the message display.
	Lit	A message will be displayed in the message display. Take corrective action according to the message displayed. The table below lists the corrective action to take in response to each message.

Maintenance Messages

Message	Corrective Action
`Check` `Process unit`	**The process unit and toner container are not properly installed.** Check that the process unit and toner container are properly installed. (See **Chapter 4**.)
`Top cover` `Open`	**The top cover is open.** Close the top cover tightly.
`Add paper`	**The paper source is out of paper.** Add paper to the paper cassette or manual feed tray.
`Paper jam`	**Open the printer and correct the paper jam.** Open the top cover or the paper feed unit and correct the paper jam (or paper mis-feeding in the cassette.) See page 5-12.

(Continued on next page)

Message	Corrective Action
`Warning` `Low memory`	**The printer's internal memory is running low.** Remove any unnecessary download fonts and/or macros. You can check the amount of user memory currently available by printing a status page.
`Toner low TK-16`	**There is not enough toner inside the toner container.** There is not enough toner. Prepare a new toner container. (See **Chapter 4**.)
`Replace Toner`	**There is no more toner in the toner container.** The printer has stopped because there is no more toner. Replace with a new toner kit. After replacing, be sure to clean the printer. (See **Chapter 4**.)
`Missing` `Toner kit TK-16`	**No toner container is installed.** Install the toner container. (See **Chapter 1**.) The printer does not operate when this message is displayed.
`Call service` `person##:0123456`	**A failure requiring the attention of service personnel has occurred.** A failure requiring the attention of service personnel has occurred and the printer has stopped. The corresponding error code and total printed pages are displayed in the message display (part indicated by #'s).

(Continued on next page)

Error Messages

Message	Corrective Action
`Memory overflow` `Press CONTINUE`	**Current print processing cannot continue due to insufficient memory.** Check available user memory by printing a status page, and either remove unnecessary download fonts and/or macros or expand the printer's memory. Press the **CONTINUE/–** key to print data as far as it was stored. You can abandon printing by the **CANCEL/◂** key.
`Print overrun` `Press CONTINUE`	**Current print processing cannot continue due to insufficient memory.** The data transferred to the printer was too complex to print on a page. Check available user memory by printing a status page, and either remove unnecessary download fonts and/or macros or expand the printer's memory. **Note:** After this message has been displayed, Page protect mode will be on. To maintain optimum use of memory during printing, display `>Page protect` from the mode select menu, and re-select `Auto`. Press the **CONTINUE/–** key to print data as far as it was stored. You can abandon printing by the **CANCEL/◂** key.
`KPDL Error` `Press CONTINUE`	**Current print processing cannot continue.** To print out a error report, display `> Print KPDL errs` from the mode select menu, and select `On`. Press the **CONTINUE/–** key to print data as far as it was stored. You can abandon printing by the **CANCEL/◂** key.

(Continued on next page)

Message	Corrective Action
I/F occupied	**The interface selected is currently being used.** The interface is secured while the interface name displayed in the message display is flashing even if the printer is in the ready state. How long this takes depends on the interface release timeout (FRPO J2) setting. This message appears, and then the ATTENTION indicator lights, when an attempt is made to select a secured interface from the control panel or when an attempt is made to perform memory card operations while the interface indicator is flashing. Repeat operations after releasing the interface.

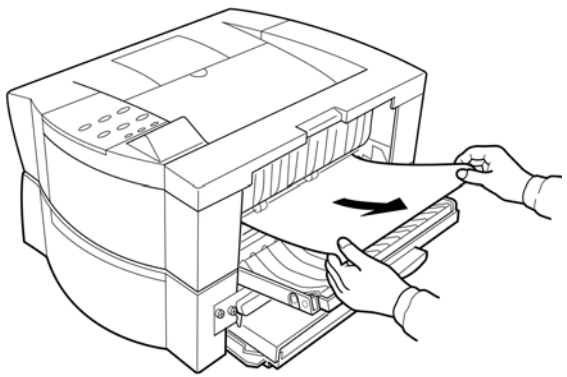
Correcting a Paper Jam

The `Paper jam` message is displayed on the message display when paper becomes stuck in the paper transport system, the paper feed timing is incorrect, or paper fails to feed at all. The jam can be corrected by removing the paper.

The printer goes-line when the `Paper jam` message is displayed.

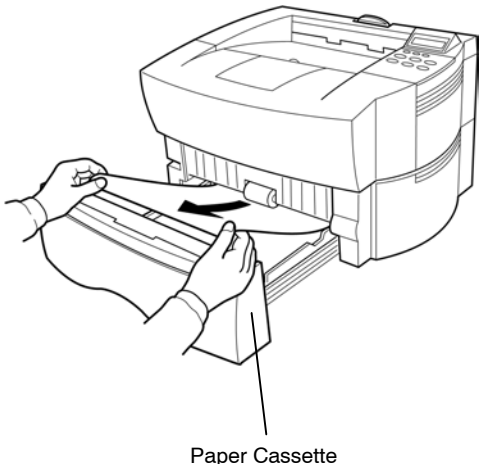
Jam at the Face-down and Face-up Trays

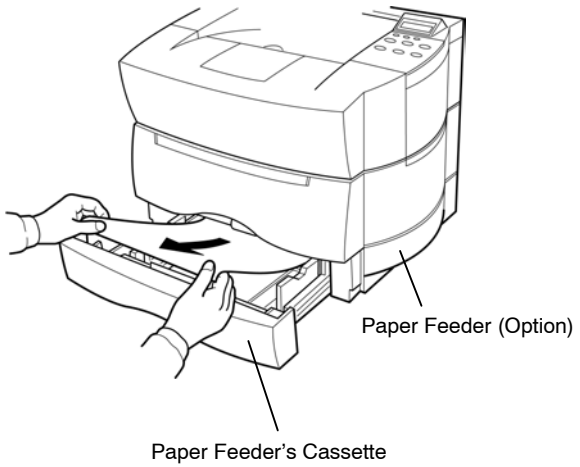
If paper is fed part way out into the tray, pull the paper out the rest of the way by hand. Open and close the printer's top cover to clear the error.



Jam at the Paper Cassette and the (Optional) Paper Feeder's Cassette

Pull out the paper cassette and remove any partially fed paper, then re-close the paper cassette. Open and close the printer's top cover to clear the error. Follow the same steps for clearing the jammed paper at the option paper feeder's cassette.



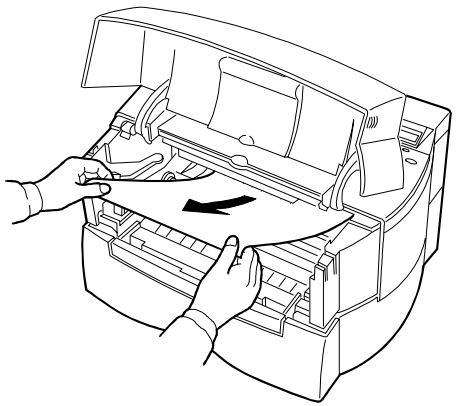


Jam Inside the Printer

Open the printer's top cover and remove the process unit. Remove any jammed paper, then replace the process unit and close the top cover. For removal/installation method of the process unit, refer to **Cleaning** (page 4-9).

Note

If the jammed paper appears to be pinched by rollers, pull it along the normal paper running direction.



Notes after removing the paper jam

Once the jammed paper is removed, opening and closing the printer's top cover clears the jam error. The printer then automatically warms up and resumes printing. Depending on where the jam occurred, the printer may or may not reprint the jammed page.

If paper jams occur frequently, try using a different type of paper, replace with paper from another ream, turn the stack of paper over, or turn the paper the other way around. Read the information in **Appendix B**. Also, look for tiny pieces of paper that may have been torn apart and overlooked when the jammed paper was removed.

If you cannot solve the problem by changing the paper, there may be a problem with the printer. Call a service person.

Note

When pulling the paper, pull it gently so as not to tear it. Torn pieces of paper are difficult to remove and may be easily overlooked, deterring the jam recovery.

Chapter 6
Symbol Set Tables

The following tables show all the characters included in the most common symbol sets available.

HP LaserJet 5Si Symbol Sets

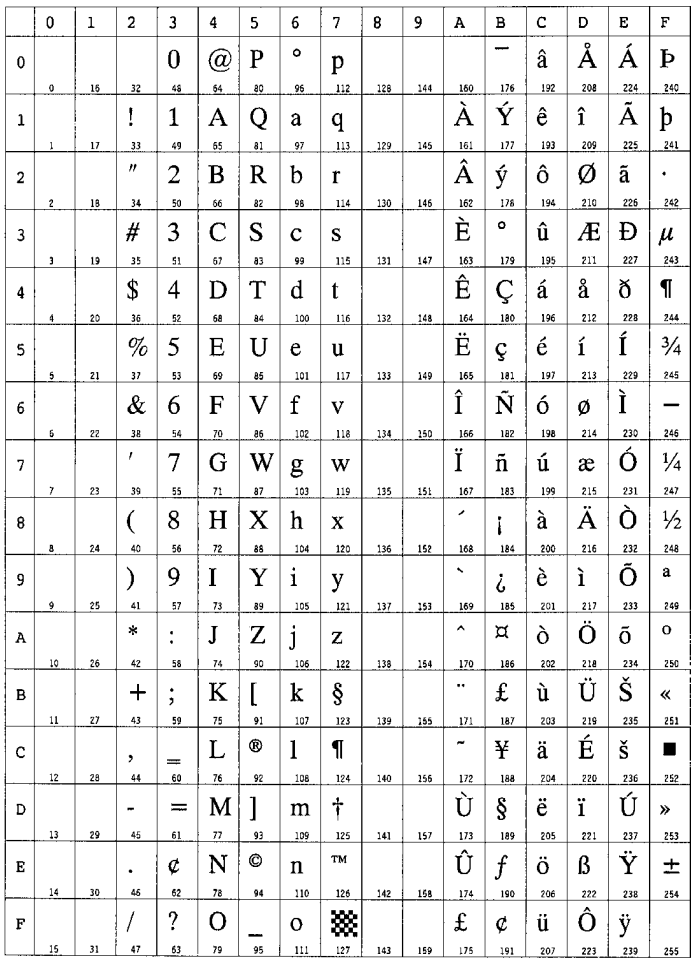
LaserJet 5Si Roman-8 (8U)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	‘	p	128	144	160	¯	â	Å	Á	Þ
1	1	17	!	1	A	Q	a	q	129	145	À	Ý	ê	î	Ã	þ
2	2	18	"	2	B	R	b	r	130	146	Â	ý	ô	Ø	ã	·
3	3	19	#	3	C	S	c	s	131	147	È	°	û	Æ	Đ	µ
4	4	20	$	4	D	T	d	t	132	148	Ê	Ç	á	å	ð	¶
5	5	21	%	5	E	U	e	u	133	149	Ë	ç	é	í	Í	¾
6	6	22	&	6	F	V	f	v	134	150	Î	Ñ	ó	ø	Ì	‗
7	7	23	’	7	G	W	g	w	135	151	Ï	ñ	ú	æ	Ó	¼
8	8	24	(	8	H	X	h	x	136	152	´	¡	à	Ä	Ò	½
9	9	25	)	9	I	Y	i	y	137	153	`	¿	è	ì	Õ	a
A	10	26	*	:	J	Z	j	z	138	154	^	¤	ò	Ö	õ	o
B	11	27	+	;	K	[	k	{	139	155	¨	£	ù	Ü	Š	«
C	12	28	,	<	L	\	l	|	140	156	~	¥	ä	É	š	■
D	13	29	-	=	M	]	m	}	141	157	Ù	§	ë	ï	Ú	»
E	14	30	.	>	N	^	n	~	142	158	Û	ƒ	ö	ß	Ÿ	±
F	15	31	/	?	O	_	o		143	159	£	¢	ü	Ô	ÿ	

LaserJet 5Si ECMA-94 Latin 1 (0N)

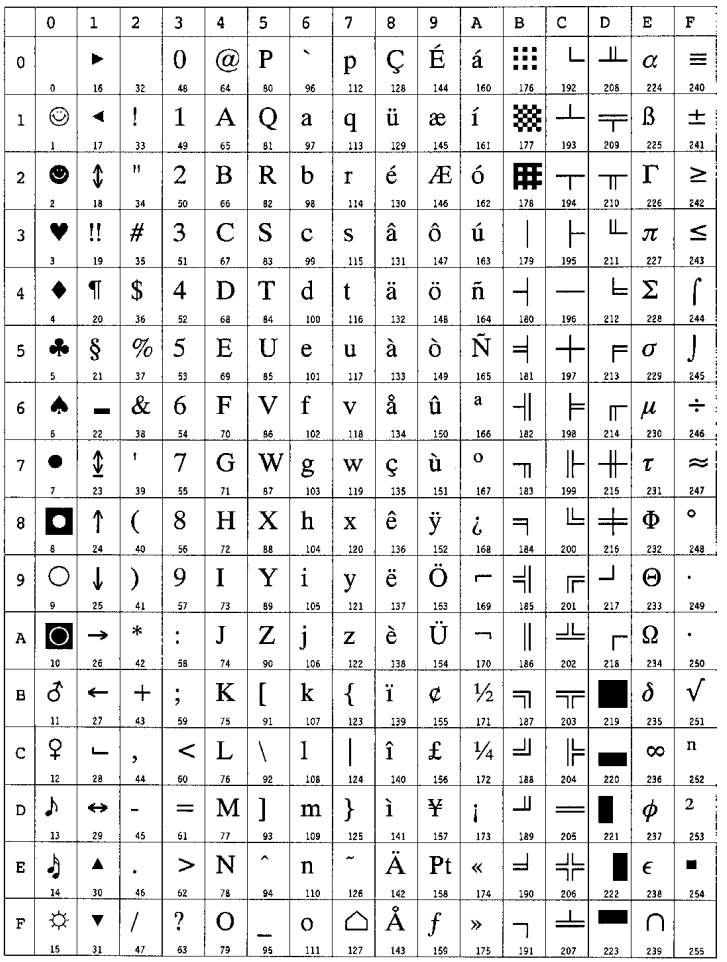
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p	128	144	160	°	À	Đ	à	ð
1	1	17	!	1	A	Q	a	q	129	145	¡	±	Á	Ñ	á	ñ
2	2	18	"	2	B	R	b	r	130	146	¢	2	Â	Ò	â	ò
3	3	19	#	3	C	S	c	s	131	147	£	3	Ã	Ó	ã	ó
4	4	20	$	4	D	T	d	t	132	148	¤	´	Ä	Ô	ä	ô
5	5	21	%	5	E	U	e	u	133	149	¥	µ	Å	Õ	å	õ
6	6	22	&	6	F	V	f	v	134	150	¦	¶	Æ	Ö	æ	ö
7	7	23	'	7	G	W	g	w	135	151	§	·	Ç	×	ç	÷
8	8	24	(	8	H	X	h	x	136	152	¨	¸	È	Ø	è	ø
9	9	25	)	9	I	Y	i	y	137	153	©	1	É	Ù	é	ù
A	10	26	*	:	J	Z	j	z	138	154	a	o	Ê	Ú	ê	ú
B	11	27	+	;	K	[	k	{	139	155	«	»	Ë	Û	ë	û
C	12	28	,	<	L	\	l	|	140	156	¬	¼	Ì	Ü	ì	ü
D	13	29	-	=	M	]	m	}	141	157	-	½	Í	Ý	í	ý
E	14	30	.	>	N	^	n	~	142	158	®	¾	Î	Þ	î	þ
F	15	31	/	?	O	_	o		143	159	¯	¿	Ï	ß	ï	ÿ

LaserJet 5Si Legal (1U)



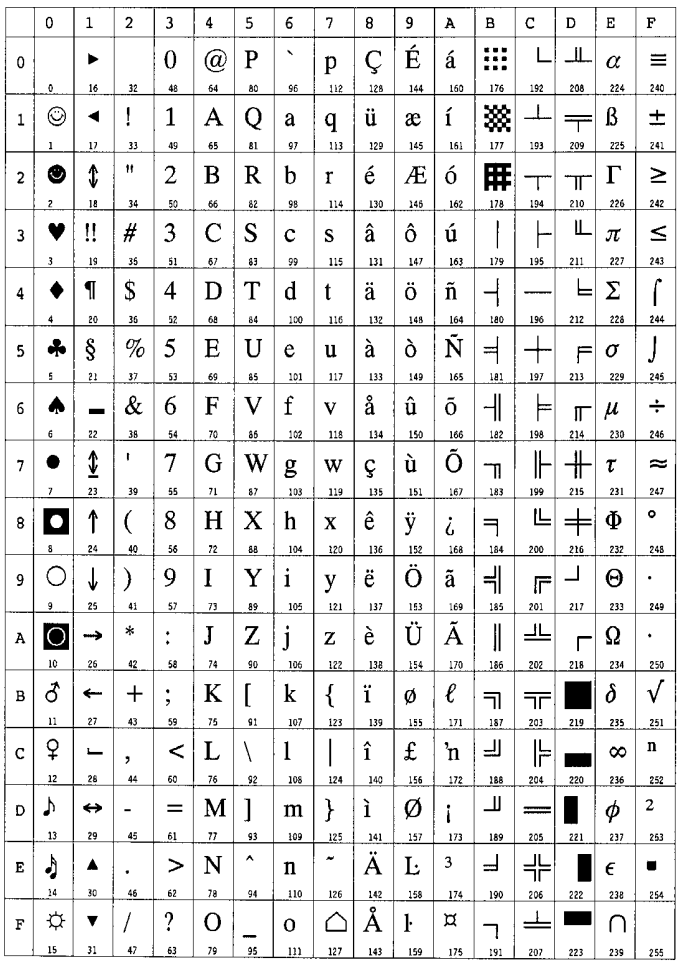
LaserJet 5Si PC-8 (10U)

To have the printer print the characters of decimal numbers of 7 through 15, and 27, set the printer to the HP PCL transparent mode (ESC&p#X).



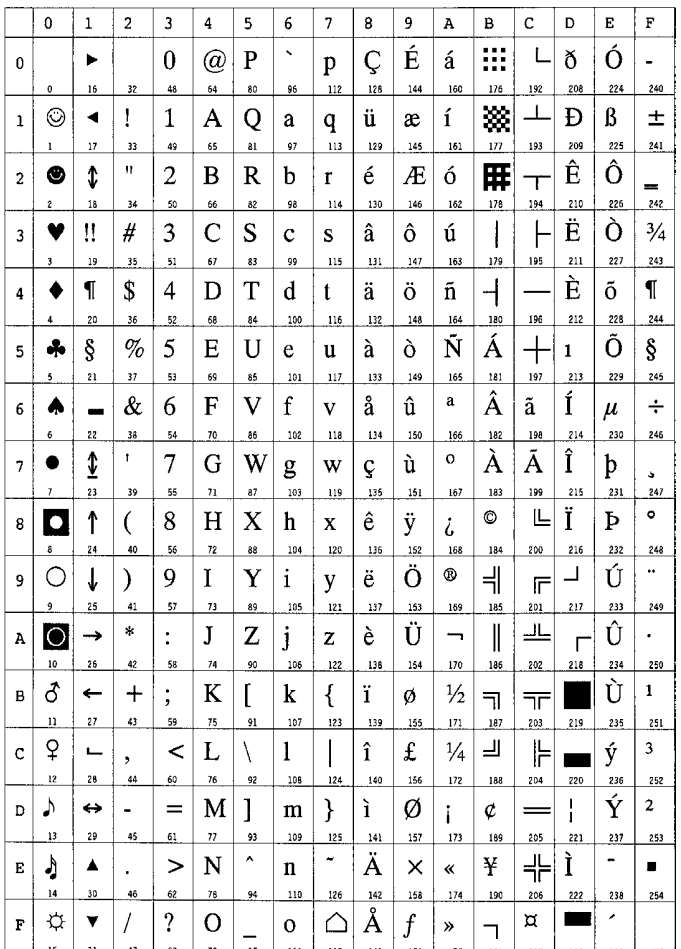
LaserJet 5Si PC-8 (D/N) (11U)

To have the printer print the characters of decimal numbers of 7 through 15, and 27, set the printer to the HP PCL transparent mode (ESC&p#X).

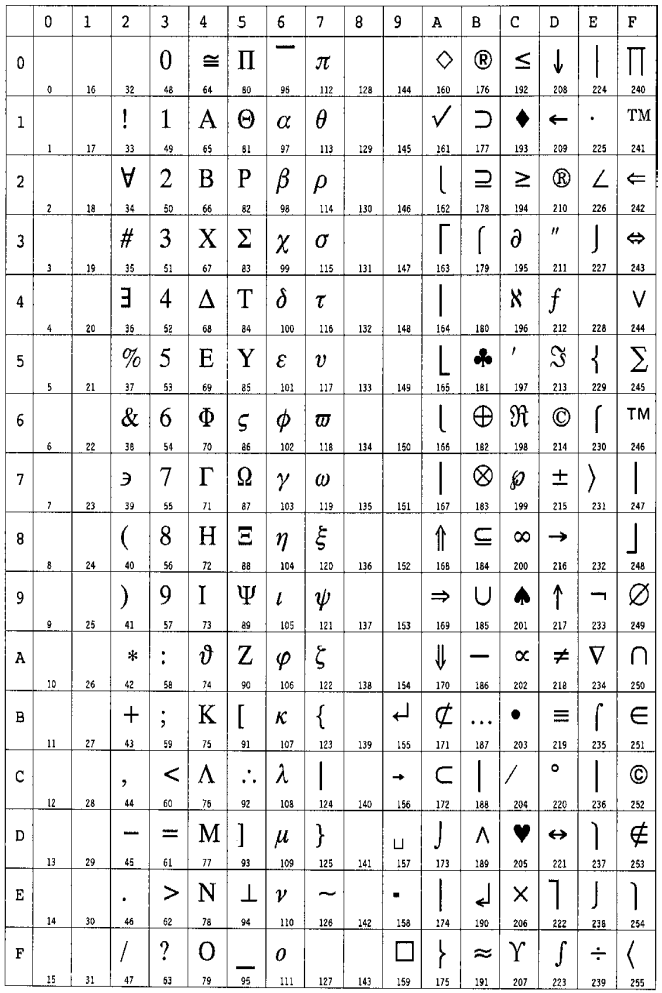


LaserJet 5Si PC-850 (12U)

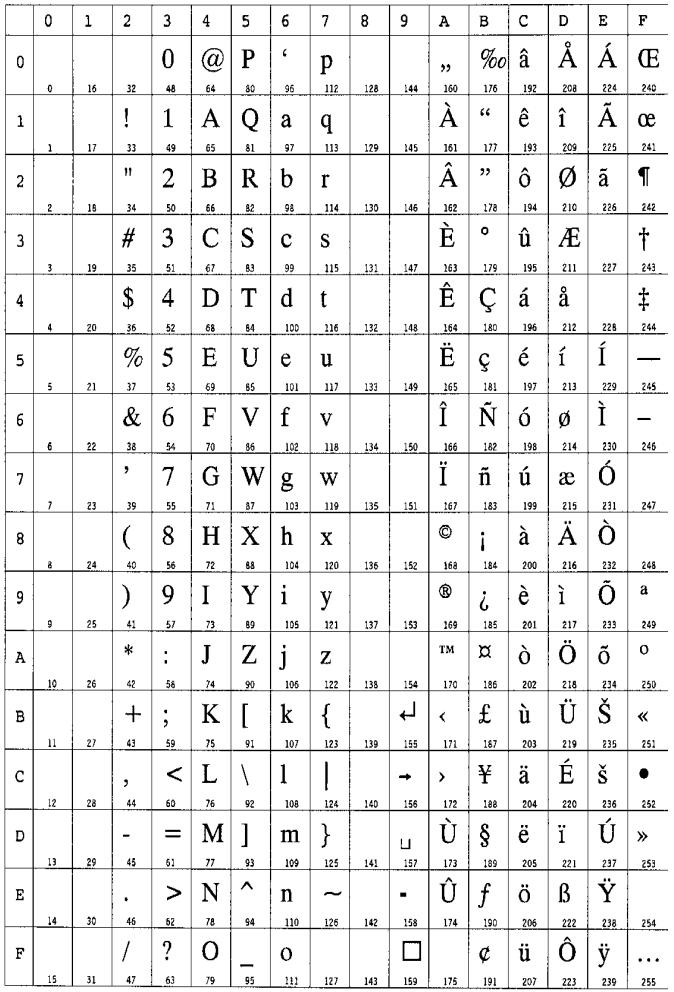
To have the printer print the characters of decimal numbers of 7 through 15, and 27, set the printer to the HP PCL transparent mode (ESC&p#X).



LaserJet 5Si Ventura Math (6M)



LaserJet 5Si Ventura International (13J)



LaserJet 5Si Ventura US (14J)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	‘	p			,,	‰				
				48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Q	a	q			“					
			33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r			”					¶
			34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	C	S	c	s			°					†
			35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	$	4	D	T	d	t								‡
			36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u								—
			37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v								–
			38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	’	7	G	W	g	w								
			39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x			©					
			40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y			®					
			41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z			TM					
			42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	k	{		↵						
			43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	L	\	l	|		→						•
			44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	]	m	}		␣		§				
			45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	^	n	~		▪						
			46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	_	o			□		¢				…
			47	63	79	95	111	127	143	159	175	191	207	223	239	255

LaserJet 5Si PS Math (5M)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	≅	Π	—	π				°	ℵ	∠	◇	
				48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Θ	α	θ			ϒ	±	ℑ	∇	⟨	⟩
			33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	∀	2	B	P	β	ρ			′	″	ℜ	®	®	∫
			34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	X	Σ	χ	σ			≤	≥	℘	©	©	⌠
			35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	∃	4	Δ	T	δ	τ			/	×	⊗	TM	TM	⌡
			36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	Y	ε	υ			∞	∝	⊕	∏	∑	⎮
			37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	Φ	ς	φ	ϖ			ƒ	∂	∅	✓	⌈	⌉
			38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	∍	7	Γ	Ω	γ	ω			♣	•	∩	·	⎪	⎪
			39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	Ξ	η	ξ			♦	÷	∪	¬	⌊	⌋
			40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Ψ	ι	ψ			♥	≠	⊃	∧	⌈	⌉
			41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	ϑ	Z	φ	ζ			♠	≡	⊇	∨	⎪	⎪
			42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	κ	{			↔	≈	⊄	⇔	⌊	⌋
			43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	Λ	∴	λ	|			←	…	⊂	⇐	⌈	⌉
			44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	−	=	M	]	μ	}			↑	|	⊆	⇑	{	}
			45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	⊥	ν	~			→	—	∈	⇒	⌊	⌋
			46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	_	o				↓	↵	∉	⇓	⎪	
			47	63	79	95	111	127	143	159	175	191	207	223	239	255

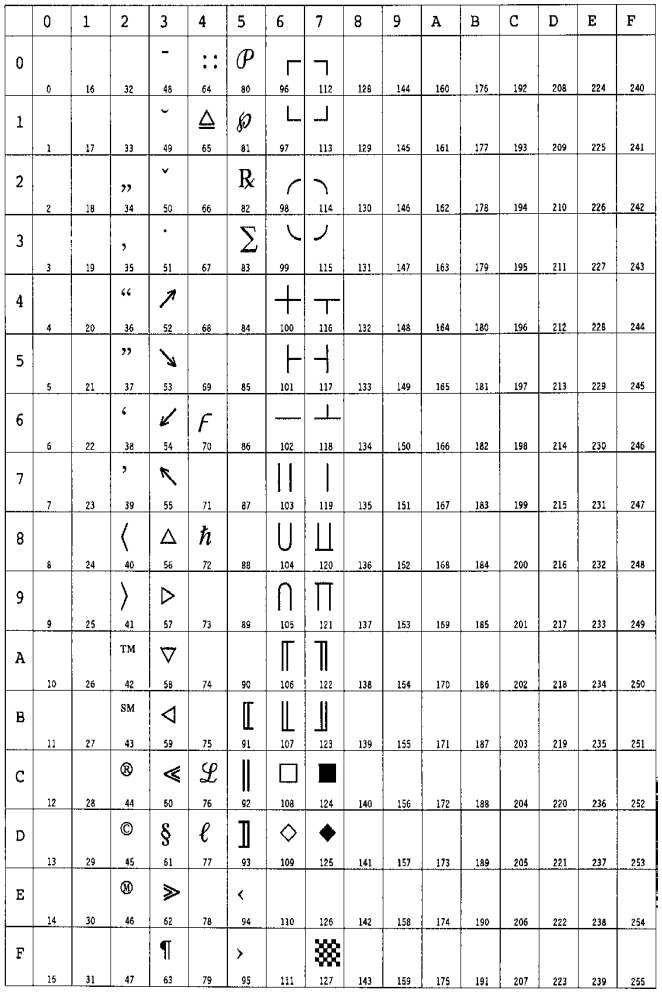
LaserJet 5Si PS Text (10J)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	‘	p	128	144	160	176	192	—	224	240
1	1	17	!	1	A	Q	a	q	129	145	¡	–	`	209	Æ	æ
2	2	18	"	2	B	R	b	r	130	146	¢	†	´	210	226	242
3	3	19	#	3	C	S	c	s	131	147	£	‡	ˆ	211	a	243
4	4	20	$	4	D	T	d	t	132	148	/	·	˜	212	228	244
5	5	21	%	5	E	U	e	u	133	149	¥	181	¯	213	229	1 245
6	6	22	&	6	F	V	f	v	134	150	f	¶	˘	214	230	246
7	7	23	’	7	G	W	g	w	135	151	§	•	˙	215	231	247
8	8	24	(	8	H	X	h	x	136	152	¤	¸	¨	216	Ł	ł 248
9	9	25	)	9	I	Y	i	y	137	153	'	„	201	217	Ø	ø 249
A	10	26	*	:	J	Z	j	z	138	154	“	”	°	218	Œ	œ 250
B	11	27	+	;	K	[	k	{	139	155	«	»	˛	219	o	ß 251
C	12	28	,	<	L	\	l	|	140	156	‹	…	204	220	236	252
D	13	29	-	=	M	]	m	}	141	157	›	‰	˝	221	237	253
E	14	30	.	>	N	^	n	~	142	158	fi	190	˛ 206	222	238	254
F	15	31	/	?	O	_	o	127	143	159	fl	¿	ˇ	223	239	255

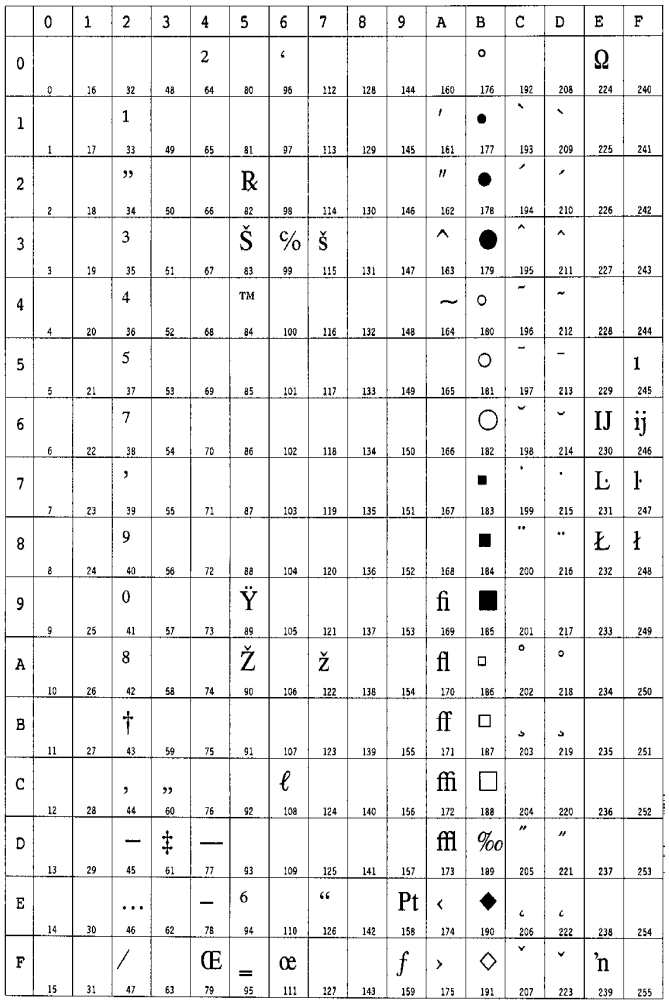
LaserJet 5Si Math-8 (8M)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	∴	Π	∵	π	128	144	160	¯ 176	⊕ 192	Å 208	⌈ 224	⌉ 240
1	1	17	✓ 33	1	A	P	α	ρ	129	145	↑ 161	∀ 177	⊙ 193	⊣ 209	⌊ 225	⌋ 241
2	2	18	" 34	2	B	Σ	β	σ	130	146	→ 162	∃ 178	⊗ 194	⊢ 210	⌠ 226	⌡ 242
3	3	19	° 35	3	Γ	T	γ	τ	131	147	↓ 163	⊤ 179	⊖ 195	⌙ 211	⎧ 227	⎫ 243
4	4	20	∞ 36	4	Δ	Υ	δ	υ	132	148	← 164	⊥ 180	∅ 196	϶ 212	⎩ 228	⎭ 244
5	5	21	÷ 37	5	E	Φ	ϵ	ϕ	133	149	⇑ 165	∪ 181	∧ 197	∫ 213	⎮ 229	⎮ 245
6	6	22	∝ 38	6	Z	X	ζ	χ	134	150	⇒ 166	∩ 182	∨ 198	∮ 214	⌀ 230	⎮ 246
7	7	23	′ 39	7	H	Ψ	η	ψ	135	151	⇓ 167	∈ 183	⩒ 199	∠ 215	∫ 231	√ 247
8	8	24	(40	8	Θ	Ω	θ	ω	136	152	⇐ 168	∋ 184	¬ 200	∅ 216	⎲ 232	⎺ 248
9	9	25	) 41	9	I	∇	ι	ϑ	137	153	⇕ 169	∉ 185	○ 201	ℵ 217	‖ 233	〉 249
A	10	26	× 42	e	K	∂	κ	φ	138	154	↔ 170	⊂ 186	· 202	ℶ 218	∠ 234	⎯ 250
B	11	27	+ 43	ε	Λ	ς	λ	ϖ	139	155	⇳ 171	⊃ 187	• 203	ℷ 219	⁄ 235	⧵ 251
C	12	28	, 44	<	M	≤	μ	≃	140	156	⇔ 172	⊄ 188	● 204	ℭ 220	– 236	〈 252
D	13	29	− 45	=	N	≠	ν	≡	141	157	⇄ 173	⊅ 189	○ 205	ℑ 221	= 237	∓ 253
E	14	30	. 46	>	Ξ	≥	ξ	≢	142	158	⇆ 174	⊆ 190	† 206	ℜ 222	* 238	± 254
F	15	31	/ 47	≈	O	_ 95	ο 111	127	143	159	⇀ 175	⊇ 191	‡ 207	ℨ 223	≅ 239	255

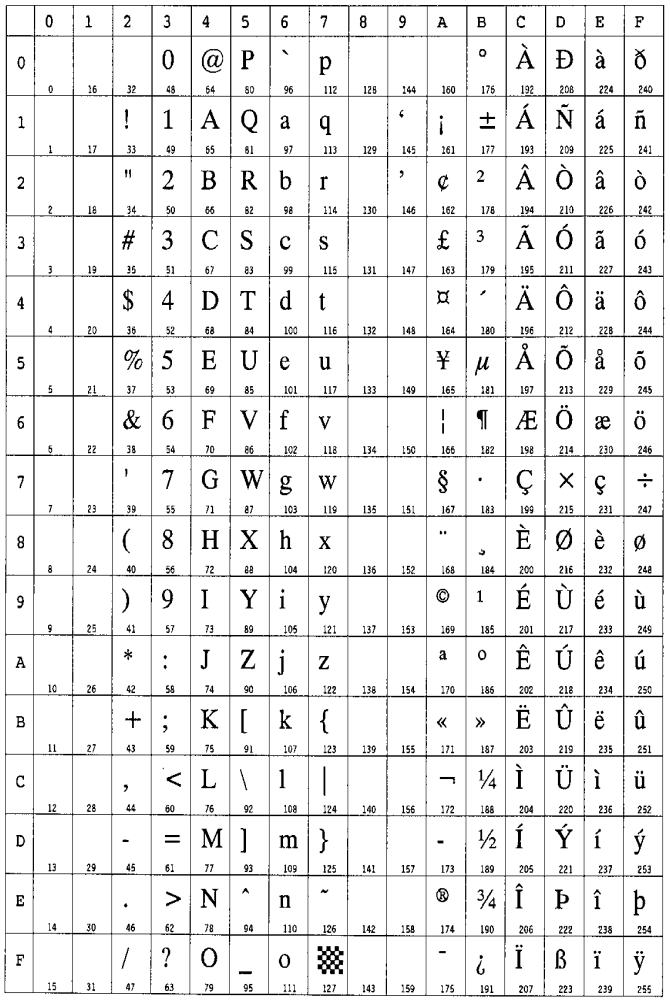
LaserJet 5Si Pi Font (15U)



LaserJet 5Si MS publishing (6J)



LaserJet 5Si Windows (9U)



	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p	128	144	160	°	À	Đ	à	ð
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2	2	18	"	2	B	R	b	r	130	’	¢	2	Â	Ò	â	ò
3	3	19	#	3	C	S	c	s	131	147	£	3	Ã	Ó	ã	ó
4	4	20	$	4	D	T	d	t	132	148	¤	´	Ä	Ô	ä	ô
5	5	21	%	5	E	U	e	u	133	149	¥	µ	Å	Õ	å	õ
6	6	22	&	6	F	V	f	v	134	150	¦	¶	Æ	Ö	æ	ö
7	7	23	'	7	G	W	g	w	135	151	§	·	Ç	×	ç	÷
8	8	24	(	8	H	X	h	x	136	152	¨	¸	È	Ø	è	ø
9	9	25	)	9	I	Y	i	y	137	153	©	1	É	Ù	é	ù
A	10	26	*	:	J	Z	j	z	138	154	a	o	Ê	Ú	ê	ú
B	11	27	+	;	K	[	k	{	139	155	«	»	Ë	Û	ë	û
C	12	28	,	<	L	\	l	|	140	156	¬	¼	Ì	Ü	ì	ü
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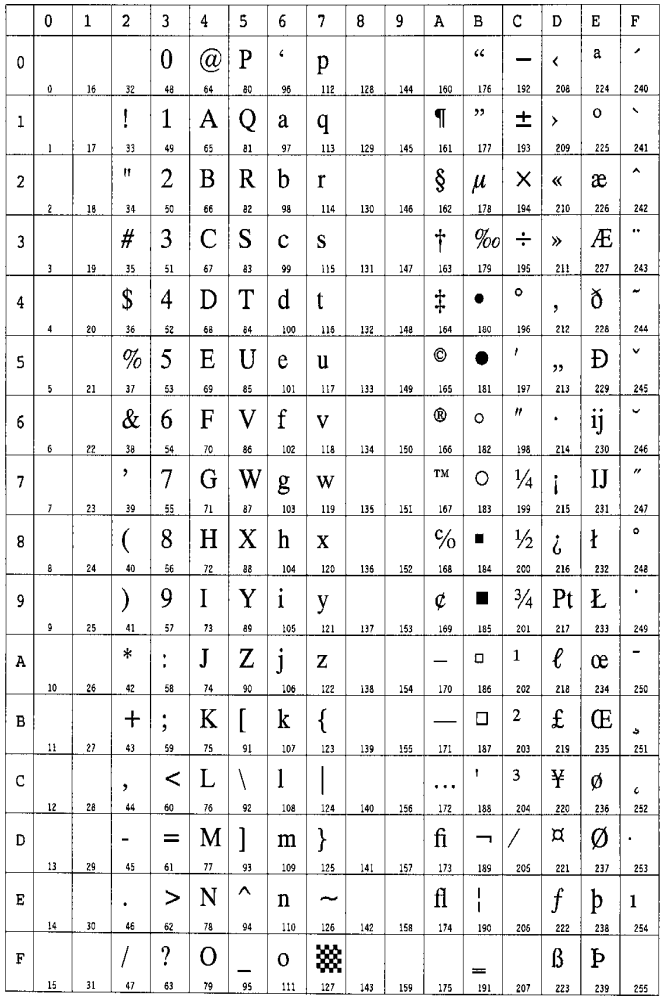
F	15	31	/	?	O	_	o	▩	143	159	¯	¿	Ï	ß	ï	ÿ
								127								

LaserJet 5Si Desktop (7J)



	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
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3	3	19	#	3	C	S	c	s	131	147	†	‰	÷	»	Æ	¨
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5	5	21	%	5	E	U	e	u	133	149	©	●	'	„	Đ	ˇ
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9	9	25	)	9	I	Y	i	y	137	153	¢	■	¾	Pt	Ł	'
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								127			175	191	207	223	239	255

LaserJet 5Si ISO Latin 2 (2N)

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				48	64	80	96	112				176	192	208	224	240
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			33	49	65	81	97	113			161	177	193	209	225	241
2	2	18	"	2	B	R	b	r	130	146	˘	˛	Â	Ň	â	ň
			34	50	66	82	98	114			162	178	194	210	226	242
3	3	19	#	3	C	S	c	s	131	147	Ł	ł	Ă	Ó	ă	ó
			35	51	67	83	99	115			163	179	195	211	227	243
4	4	20	$	4	D	T	d	t	132	148	¤	´	Ä	Ô	ä	ô
			36	52	68	84	100	116			164	180	196	212	228	244
5	5	21	%	5	E	U	e	u	133	149	Ľ	l’	Ĺ	Ő	Í	ő
			37	53	69	85	101	117			165	181	197	213	229	245
6	6	22	&	6	F	V	f	v	134	150	Ś	ś	Ć	Ö	ć	ö
			38	54	70	86	102	118			166	182	198	214	230	246
7	7	23	’	7	G	W	g	w	135	151	§	ˇ	Ç	×	ç	÷
			39	55	71	87	103	119			167	183	199	215	231	247
8	8	24	(	8	H	X	h	x	136	152	¨	¸	Č	Ř	č	ř
			40	56	72	88	104	120			168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y	137	153	Š	š	É	Ů	é	ů
			41	57	73	89	105	121			169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z	138	154	Ş	ş	Ę	Ú	ę	ú
			42	58	74	90	106	122			170	186	202	218	234	250
B	11	27	+	;	K	[	k	{	139	155	Ť	t’	Ë	Ű	ë	ű
			43	59	75	91	107	123			171	187	203	219	235	251
C	12	28	,	<	L	\	l	|	140	156	Ź	ź	Ě	Ü	ě	ü
			44	60	76	92	108	124			172	188	204	220	236	252
D	13	29	-	=	M	]	m	}	141	157	-	˝	Í	Ý	í	ý
			45	61	77	93	109	125			173	189	205	221	237	253
E	14	30	.	>	N	^	n	~	142	158	Ž	ž	Î	Ţ	î	ţ
			46	62	78	94	110	126			174	190	206	222	238	254
F	15	31	/	?	O	_	o	▩	143	159	Ż	ż	Ď	ß	ď	˙
			47	63	79	95	111	127			175	191	207	223	239	255

LaserJet 5Si ISO Latin 5 (5N)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p	128	144	160	°	À	Ğ	à	ğ
				48	64	80	96	112				176	192	208	224	240
1	1	17	!	1	A	Q	a	q	129	145	¡	±	Á	Ñ	á	ñ
			33	49	65	81	97	113			161	177	193	209	225	241
2	2	18	"	2	B	R	b	r	130	146	¢	2	Â	Ò	â	ò
			34	50	66	82	98	114			162	178	194	210	226	242
3	3	19	#	3	C	S	c	s	131	147	£	3	Ã	Ó	ã	ó
			35	51	67	83	99	115			163	179	195	211	227	243
4	4	20	$	4	D	T	d	t	132	148	¤	´	Ä	Ô	ä	ô
			36	52	68	84	100	116			164	180	196	212	228	244
5	5	21	%	5	E	U	e	u	133	149	¥	µ	Å	Õ	å	õ
			37	53	69	85	101	117			165	181	197	213	229	245
6	6	22	&	6	F	V	f	v	134	150	¦	¶	Æ	Ö	æ	ö
			38	54	70	86	102	118			166	182	198	214	230	246
7	7	23	’	7	G	W	g	w	135	151	§	·	Ç	×	ç	÷
			39	55	71	87	103	119			167	183	199	215	231	247
8	8	24	(	8	H	X	h	x	136	152	¨	¸	È	Ø	è	ø
			40	56	72	88	104	120			168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y	137	153	©	1	É	Ù	é	ù
			41	57	73	89	105	121			169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z	138	154	a	o	Ê	Ú	ê	ú
			42	58	74	90	106	122			170	186	202	218	234	250
B	11	27	+	;	K	[	k	{	139	155	«	»	Ë	Û	ë	û
			43	59	75	91	107	123			171	187	203	219	235	251
C	12	28	,	<	L	\	l	|	140	156	¬	¼	Ì	Ü	ì	ü
			44	60	76	92	108	124			172	188	204	220	236	252
D	13	29	-	=	M	]	m	}	141	157	-	½	Í	İ	í	ı
			45	61	77	93	109	125			173	189	205	221	237	253
E	14	30	.	>	N	^	n	~	142	158	®	¾	Î	Ş	î	ş
			46	62	78	94	110	126			174	190	206	222	238	254
F	15	31	/	?	O	_	o	▩	143	159	¯	¿	Ï	ß	ï	ÿ
			47	63	79	95	111	127			175	191	207	223	239	255

LaserJet 5Si Windows Latin 1 (19U)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p	128	144	160	°	À	Đ	à	ð
1	1	17	!	1	A	Q	a	q	129	‘	¡	±	Á	Ñ	á	ñ
2	2	18	"	2	B	R	b	r	,	’	¢	2	Â	Ò	â	ò
3	3	19	#	3	C	S	c	s	*f*	“	£	3	Ã	Ó	ã	ó
4	4	20	$	4	D	T	d	t	„	”	¤	´	Ä	Ô	ä	ô
5	5	21	%	5	E	U	e	u	…	•	¥	µ	Å	Õ	å	õ
6	6	22	&	6	F	V	f	v	†	–	¦	¶	Æ	Ö	æ	ö
7	7	23	'	7	G	W	g	w	‡	—	§	·	Ç	×	ç	÷
8	8	24	(	8	H	X	h	x	ˆ	˜	¨	¸	È	Ø	è	ø
9	9	25	)	9	I	Y	i	y	‰	™	©	1	É	Ù	é	ù
A	10	26	*	:	J	Z	j	z	Š	š	a	o	Ê	Ú	ê	ú
B	11	27	+	;	K	[	k	{	‹	›	«	»	Ë	Û	ë	û
C	12	28	,	<	L	\	l	|	Œ	œ	¬	¼	Ì	Ü	ì	ü
D	13	29	-	=	M	]	m	}	141	157	-	½	Í	Ý	í	ý
E	14	30	.	>	N	^	n	~	142	158	®	¾	Î	Þ	î	þ
F	15	31	/	?	O	_	o	127	143	Ÿ	¯	¿	Ï	ß	ï	ÿ

LaserJet 5Si Windows Latin 2 (9E)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p	128	144	160	°	Ŕ	Đ	ŕ	đ
1	1	17	!	1	A	Q	a	q	129	‘	ˇ	±	Á	Ń	á	ń
2	2	18	"	2	B	R	b	r	,	’	˘	¸	Â	Ň	â	ň
3	3	19	#	3	C	S	c	s	131	“	Ł	ł	Ă	Ó	ă	ó
4	4	20	$	4	D	T	d	t	„	”	¤	´	Ä	Ô	ä	ô
5	5	21	%	5	E	U	e	u	…	•	Ą	µ	Ĺ	Ő	Í	ő
6	6	22	&	6	F	V	f	v	†	–	¦	¶	Ć	Ö	ć	ö
7	7	23	'	7	G	W	g	w	‡	—	§	·	Ç	×	ç	÷
8	8	24	(	8	H	X	h	x	136	152	¨	¸	Č	Ř	č	ř
9	9	25	)	9	I	Y	i	y	‰	™	©	ą	É	Ů	é	ů
A	10	26	*	:	J	Z	j	z	Š	š	Ş	ş	Ę	Ú	ę	ú
B	11	27	+	;	K	[	k	{	‹	›	«	»	Ë	Ű	ë	ű
C	12	28	,	<	L	\	l	|	Ś	ś	¬	Ľ	Ě	Ü	ě	ü
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E	14	30	.	>	N	^	n	~	Ž	ž	®	ľ	Î	Ţ	î	ţ
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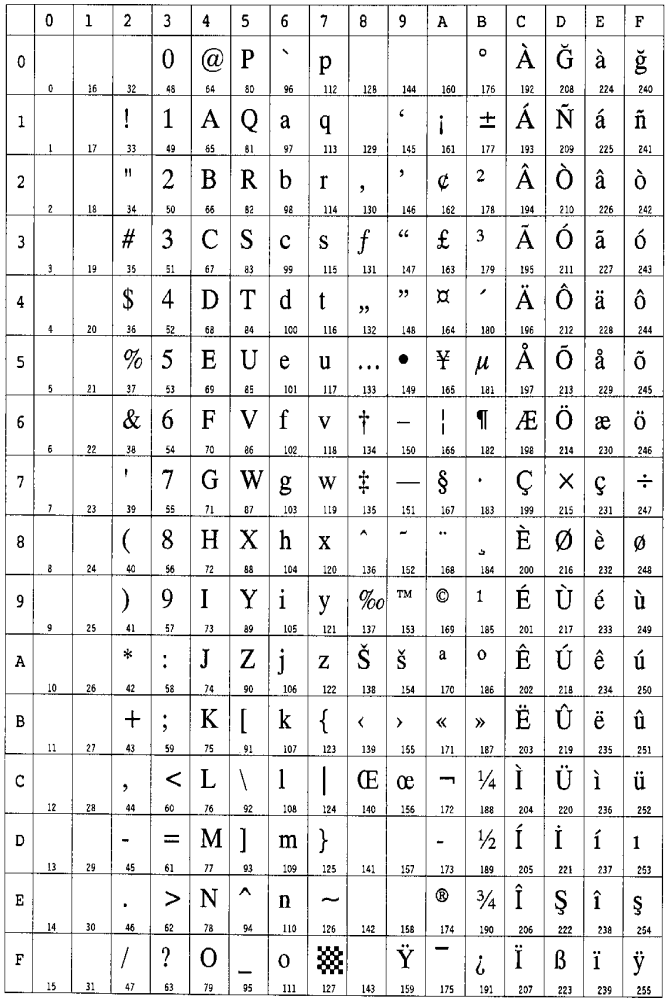
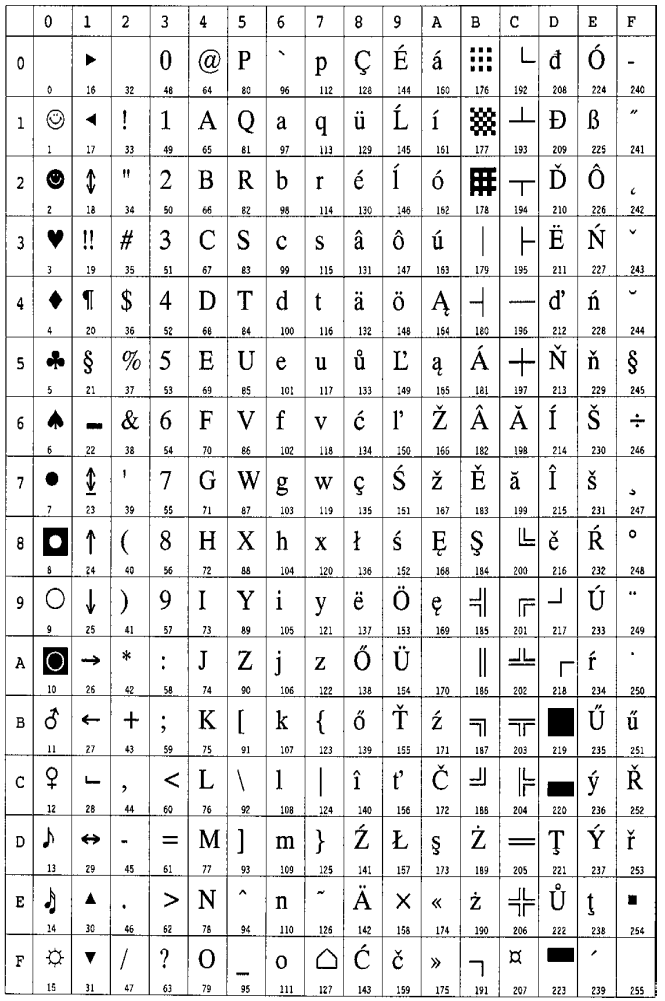
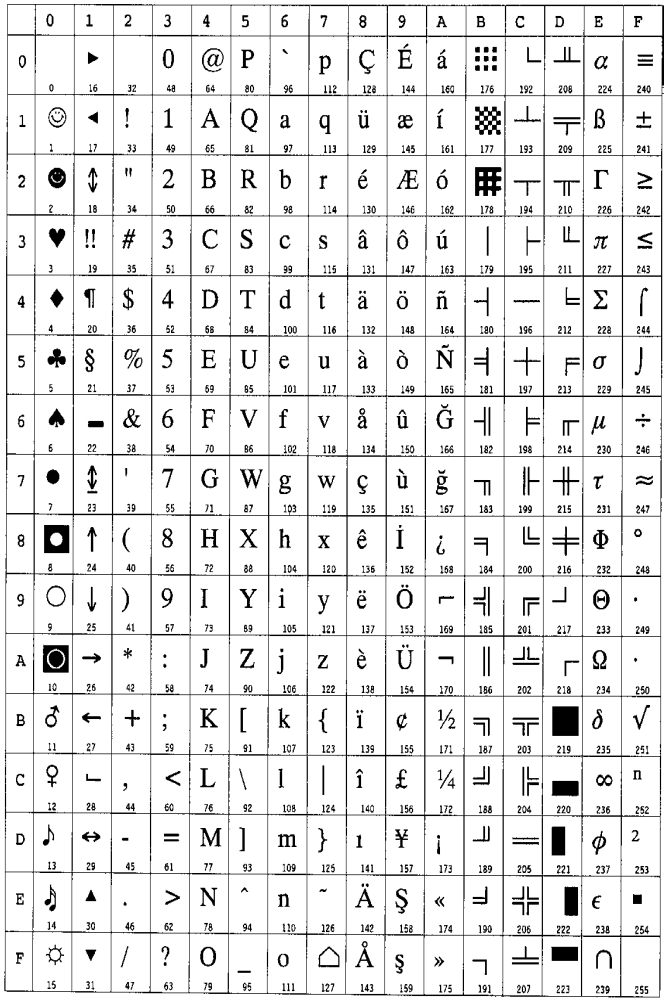
LaserJet 5Si Windows Latin 5 (5T)



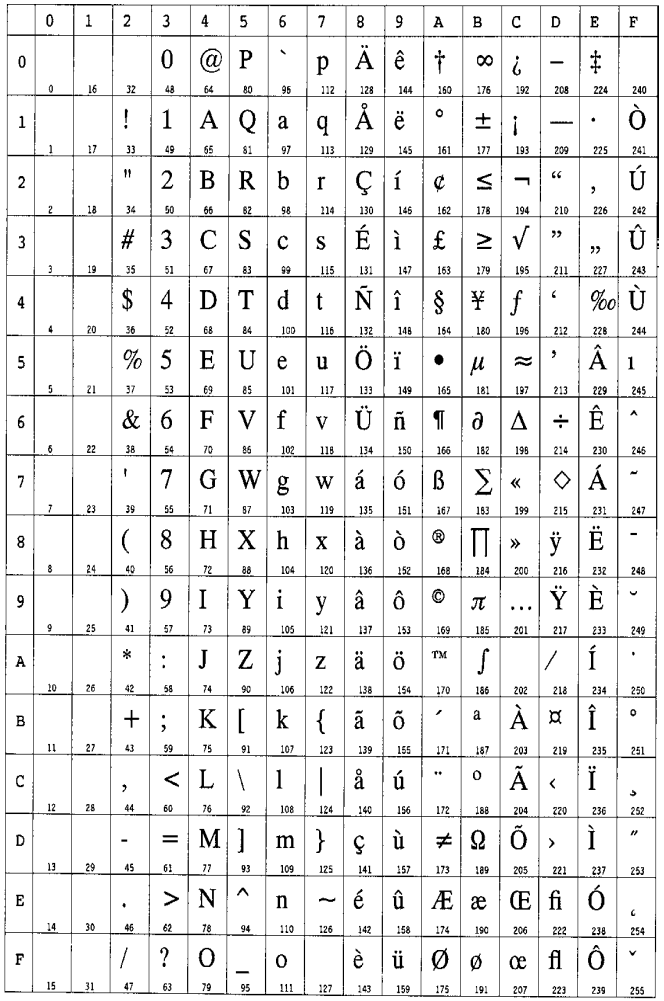
LaserJet 5Si PC-852 Latin 2 (17U)



LaserJet 5Si PC-Turkish (9T)



Macintosh (12J)



LaserJet 5Si International Characters

	35	36	64	91	92	93	94	96	123	124	125	126
0U ISO-6 US ASCII	#	$	@	[	\	]	^	‘	{	|	}	~
1E ISO-4 UK	£	$	@	[	\	]	^	`	{	|	}	¯
1F ISO-69 French	£	$	à	°	ç	§	^	µ	é	ù	è	¨
1G ISO-21 German	#	$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
0I ISO-15 Italian	£	$	§	°	ç	é	^	ù	à	ò	è	ì
0S ISO-11 Swedish names	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
2S ISO-17 Spanish	£	$	§	¡	Ñ	¿	^	`	°	ñ	ç	~
0D ISO-60 Norwegian v1	#	$	@	Æ	Ø	Å	^	`	æ	ø	å	¯

Index

B

Bitmap fonts 3-2

C

CANCEL key 2-7
Cap 4-2
Cleaning cloth 4-2
Cleaning 4-9
Control panel 2-2
CONTINUE key 2-8

D

Dispose of the old toner container 4-5

E

Ecoprint 2-28, 5-6
ENTER key 2-8
Envelope B-11
Environmental requirements of the page printer 1-2
Error messages 5-10
Expanding memory 1-32
EXIT key 2-8

F

Fonts 3-1
FORM FEED key 2-8

G

General guide 5-2

H

Humidity 1-3

I

Indicators 2-4
Installing 1-26
Interface signals C-3
Interface C-1

K

KIR 2-26
KPDL 3-1, 3-6

L

List of fonts 3-3

M

Maintenance Indications 5-8
Maintenance 4-1
Manual paper feeding 2-30
Message display 2-3
MODE key 2-8
Moving the printer 1-8

O

OHP film B-10
ON LINE key 2-7

P

Paper feeder 1-12
Paper jam 5-12
Paper specifications B-3
Parallel interface connector 1-22
Parallel interface C-2
Places to avoid 1-2
Plastic waste bag 4-2
Power cord 1-7, 1-23
Print quality problem 5-4
Printer driver 1-26
Printer problems 5-2
Printer specifications A-1

R

Right paper B-4

S

Scalable fonts 3-2
Setup and connections 1-11
Setup 1-11
Special paper B-9
STATUS key 2-8
Status page 2-17
Surrounding space 1-5

T

Temperature 1-3
Toner container release lever 4-4
Toner container replacement interval 4-2
Toner container 1-7, 4-2
Toner kit 4-2
Troubleshooting 5-1

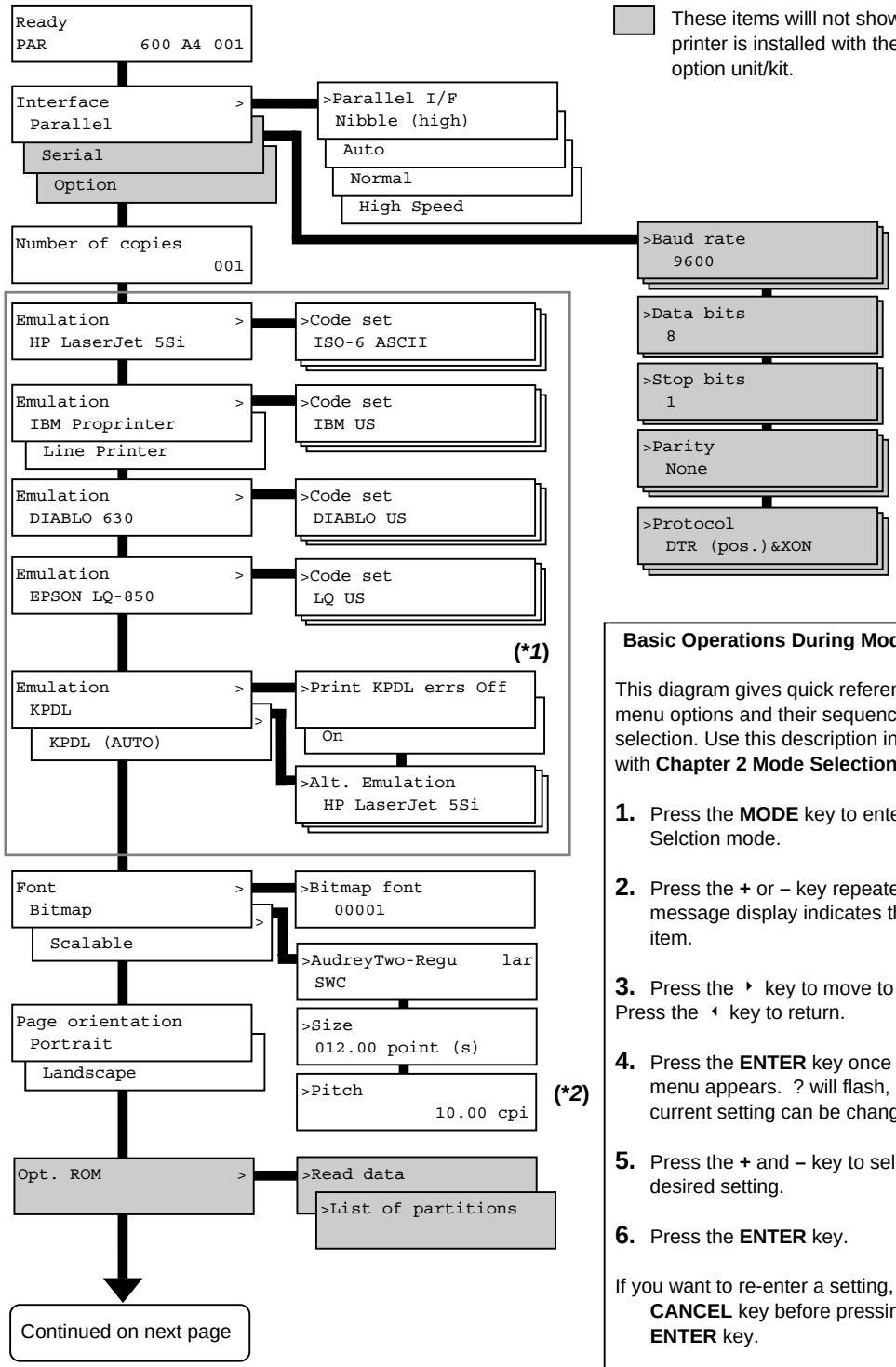
U

Unpacking 1-6

W

Windows 1-26

Mode Select Menu



These items willl not show unless the printer is installed with the applicable option unit/kit.

Basic Operations During Mode Selection

This diagram gives quick reference to all menu options and their sequence of selection. Use this description in combination with **Chapter 2 Mode Selection Menu**.

1. Press the **MODE** key to enter Mode Selction mode.
2. Press the **+** or **–** key repeatedly until the message display indicates the desired item.
3. Press the ‣ key to move to a submenu. Press the ‹ key to return.
4. Press the **ENTER** key once the desired menu appears. ? will flash, and the current setting can be changed.
5. Press the **+** and **–** key to select the desired setting.
6. Press the **ENTER** key.

If you want to re-enter a setting, press the **CANCEL** key before pressing the **ENTER** key.

7. Press the **EXIT** key. This will enable currently selected settings.

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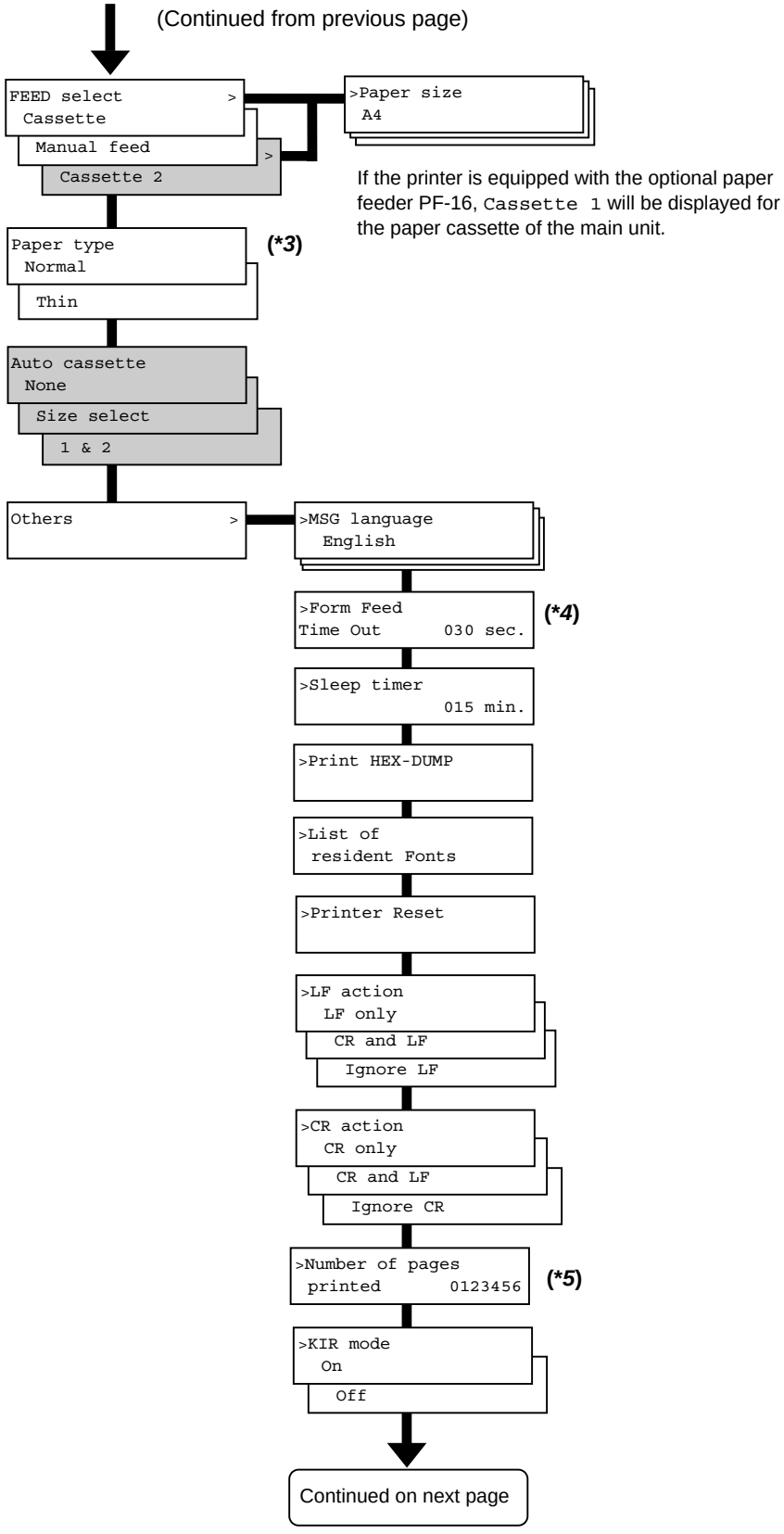

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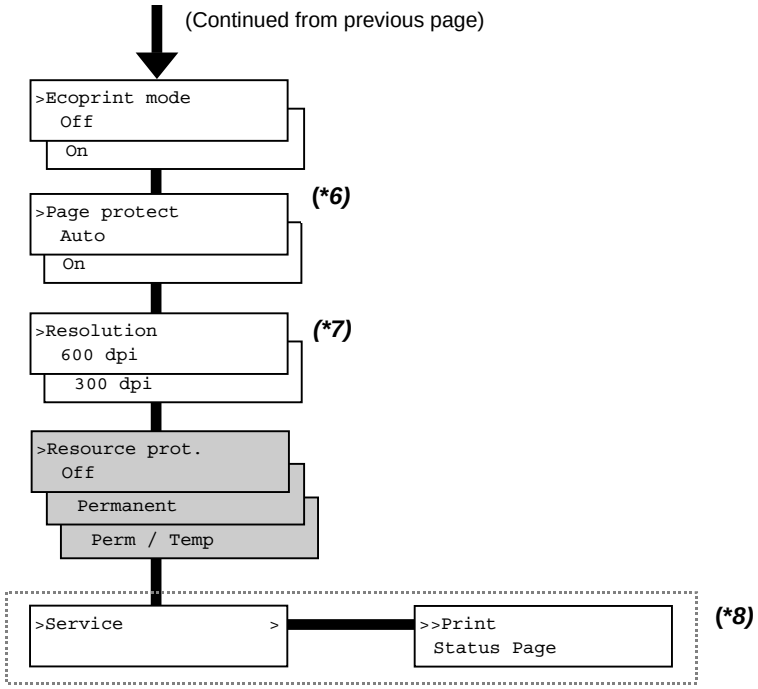

***1:** The printer can be set to print error data during KPDL emulation. If this is set to `On`, error data will be printed if trouble occurs during printing. This is set to `Off` before leaving the factory.

***2:** The `>Size` menu is not available for the *Courier* and *Letter-Gothic* fonts. The `>Pitch` menu is displayed instead for these fixed width fonts.

***3:** When feeding thin paper and printing appears faint even after changing the density setting, try changing the printer setting to `Thin`.

***4:** After the printer accepts all data and there is no more data from the computer, the printer will wait a set amount of time without printing the final page. Once this preset amount of time has elapsed, the printer will automatically issue a form feed. This timeout setting can be set in 5-second increments up to 495 seconds.

***5:** This is the total number of pages printed by the printer up to the present time.

***6:** Although `Auto` is the default setting and this menu does not usually appear, page protection mode will be forcibly set to `On` if a `Print overrun Press CONTINUE` error occurs due to insufficient printer memory. Be sure to return this setting to `Auto` in order to maintain high printer memory efficiency.

***7:** This sets the print resolution.

***8:** These menus are for service personnel. They should not be operated by the user.